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**THE WING SEED CO.**  
**MECHANICSBURG, OHIO**  
**1917**



# INTRODUCTION

**W**E EXTEND GREETING, first to our many thousand friends who have known us throughout the past and whose patronage has enabled us to continue business, and secondly to the new ones who will receive this booklet now for the first time.

We hardly think it necessary to explain to our old customers any reason for their continued patronage, because, judging from the fact that the year just ended, instead of requiring a special "trouble-man," saw in our office practically no complaint whatever, naturally we feel pretty sure that both our seeds and our service proved satisfactory. For those who do not know us we wish to say that we consider our seeds to be covered by the strongest guarantee possible to produce, the guarantee of long and wide experience, of years during which we have practically made no mistake whatever in handling large stocks and many varieties. The reason for our success is simply this: we test everything out before offering it to our customers. In our trial grounds we conduct several thousand tests each year, both in vegetables and flowers and in the great field crops. These tests are so carefully conducted that when we advise our customers to purchase freely from any particular stock, they need never hesitate, because up to this time we have never made a false recommendation.

We wish to call special attention to our Bulb Department. These flowers have been favorites with us for our entire lives, and it was only giving expression to our personal tastes when we began enlarging this branch of our business. Today we have the largest assortment of Gladioli in Ohio, and we honestly believe the best assortment in America. We think we have the largest assortment of Iris in Ohio. We are sure that we have the largest assortment of Dahlias, and certainly one of the best collections of Peonies. All of these plants, the original stocks of which came from the world's greatest experts, we grow ourselves, and we are positive that we can please the most exacting enthusiasts with any of these flowers.

Ever since the great European war has begun, all seedsmen have experienced great difficulty in obtaining the stocks of seed which they required from Europe. We congratulate ourselves that up to this time we have succeeded in keeping fair-sized stocks of all our European requirements, and it has not been necessary to use anything inferior to the highest standards that we obtain in times of peace from these great nations. We think that we have enough of the European seeds to carry us through this season also.

## GUARANTEE

It certainly would be impossible for us to continue in business if we did not satisfy our customers. The wish to continue in business is therefore a sort of a guarantee in itself. Any lot of seed which we send out and which is found unsatisfactory upon arrival, we will cheerfully take back and either refund the purchase price or send other seed, as our customers prefer. All our seeds are tested for germination before leaving our warehouse, and anything showing even a weak germination is discarded entirely for

seed purposes. Many delicate flower and vegetable seeds are very difficult to germinate, and in the hands of inexperienced planters will not grow, simply because proper conditions are not given them. Where any of our seeds fail to grow and we receive satisfactory evidence showing that the fault lay in the seed itself, we will cheerfully refund the purchase money. Should we, by mistake, send out the wrong bulb to any customer, we will cheerfully correct the error. We do not think that any seedsman should be asked to do more.

## PRICES

Prices of many of the grass seeds fluctuate so much in market that we have decided, instead of putting our prices in the catalogue at a high enough level so that we could be sure to maintain it throughout the season, to use the Price List, which is independent of the catalogue, and this will be found enclosed. We will change our prices as market con-

ditions compel us to, thereby giving our customers the benefit of any fall in prices, instead of beginning the season on a high level and maintaining it throughout as some other seedsmen do. In order to take advantage of our Price Lists, orders should be sent us immediately upon receipt of them. We usually change prices once a week, on Saturday.

## SHIPMENTS

Unless otherwise requested, we make all shipments the day following receipt of order. When requested, we will

hold shipments a reasonable time, until customers are ready to have us make shipment.

## IMPORTANT SUGGESTIONS

When ordering seeds of us be sure to specify whether you wish shipment made by freight or express. We have the Big Four Railroad and the American Express only.

Be sure to state your county and railroad, as this facilitates your shipment.

We sell absolutely for cash. We accept checks at their face value, drafts or money orders, but if cash in some form does not accompany your order it is our invariable rule to send C. O. D., or if by freight to attach sight draft to the bill of lading, payable upon arrival of the seed and after your inspection. Go to the bank, pay the draft and

get the bill of lading, give it to the freight agent, and he will deliver the seed to you. This method of shipping whereby we attach sight draft to the bill of lading is very safe for our customers themselves, as they do not have to pay the draft until the goods arrive, nor do they have to pay at all unless the goods are satisfactory.

If your seed arrives short weight or damaged, have your agents mark condition and shortage on your expense bill, and send to us immediately. We will either assist you to file claim or do so ourselves, but we cannot do it without this expense bill so marked.

***WE GUARANTEE SAFE ARRIVAL, BUT NOT DATE OF ARRIVAL.***





Celery in our Trial Grounds.

## GARDEN SEEDS

**T**HIS DEPARTMENT of our business is doubling each year, and the seeds must be giving satisfaction or we could not do this. We certainly try to have them satisfactory. Everything that we do not grow ourselves is grown for us on contract by the world's experts. We test everything out for germination before selling any of the seed, and each summer we test in our trial grounds a small sample from every lot of seed that we handle. Incidentally, our trial grounds are worth coming many miles to see.

We are still experiencing troubles with crop failures, the bean crop this year being very short, and some European seeds almost impossible to obtain. We are thankful to say, however, that in almost everything, including European seeds, our needs are fully supplied and we can furnish our customers the best of everything.

Please notice the generous size of all our packets, also the moderate prices charged for everything in this department. We would emphasize the fact that we have not lowered quality from the very highest possible point in order to give you moderate prices.

### CULTURAL DIRECTIONS

We have included some simple cultural directions in our vegetable and flower seed matter. These directions apply to our own latitude of 40 degrees, and in places very far to the north or to the south of us they should be modified to suit local conditions.

### SEEDS PREPAID

We prepay postage or express on all vegetable and flower seeds ordered by packet, ounce, quarter-pound, pound, pint or quart, to any part of the United States or its colonies. Quantities ordered above these amounts go at purchaser's expense. When ordering by parcel post, please include postage with order. For table showing parcel post rates in effect October 20, 1915, see page 2. This will show our customers the approximate amount of postage to add when ordering by parcel post. We guarantee safe delivery, no matter how the goods are shipped.

#### *Special Prices on Large Amounts of Seed.*

No vegetables bought on market are as delicious as those from your own garden. Plant a little patch this year, and decrease the high cost of living.

Customers will please not forget to sign their names, and to give both their postoffice and shipping point very plainly. We advise them to keep a copy of their order for comparison. If any error is made in filling, we will gladly rectify it upon advisement.

*Ask for Dealers' Prices.*

### SPECIAL PREMIUM OFFERS FOR 1917

In order to acquaint those of our customers who order garden seeds only with the high quality of our other seeds and bulbs, we offer the following premiums. With each Two Dollar order for Vegetable and Flower Seeds, we will send, when requested, as a special free premium, your choice of the following:

First—Field Seed Premium, which consists of one ounce each of Alfalfa, Dakota 30; each variety of our Soy Beans; each variety of our Seed Corn; Winter Vetch; Bromus Inermis; Tall Meadow Oats; Meadow Fescue.

Second—Fifty cents' worth of your choice in any Bulbs. Collections must not be included.

Third—Your choice of fifty cents' worth of other Vegetable or Flower Seeds, not included in your paid order. Collections must not be included.

We wish to make it worth while for our customers to work for us among their neighbors, and to accomplish this we make the following offer:

For each Two Dollar order which you send us for neighbors' seeds, we will give you a coupon redeemable in fifty cents' worth of either Field, Vegetable or Flower Seeds or any Bulbs. This offer does not include collections.

This offer is not a money-making proposition, but is made solely to acquaint your friends with the superior quality of our seeds.

*Ask for Market Gardeners' Price List.*

# COLLECTIONS

## ONE DOLLAR COLLECTION

This collection is made up when we are not busy and it is on this point that we make our saving. The seeds are as choice as can be found anywhere; the varieties of the very best.

For one dollar we give you one packet each of

Beans—Keeney's Stringless Refugee Wax.  
 Beans—Kentucky Wonder Wax.  
 Beans—Burpee's Bush Lima.  
 Beet—Detroit Dark Red Turnip.  
 Cabbage—Copenhagen Market.  
 Cabbage—Glory of Enkuizen.  
 Celery—White Plume.  
 Cucumber—Fordhook Famous.  
 Cucumber—Davis Perfect.  
 Corn, Sweet—Peep-O-Day.  
 Corn, Sweet—Golden Bantam.  
 Corn, Sweet—Black Mexican.  
 Lettuce—May King.  
 Lettuce—Simpson's Early Curled.  
 Lettuce—Cos, White Paris.  
 Watermelon—Kleckley Sweet.

Muskmelon—Rockyford.  
 Muskmelon—Burrell Gem.  
 Onion—Yellow Globe Danvers.  
 Onion—Prizetaker.  
 Parsnip—Guernsey.  
 Pepper—Neapolitan.  
 Peas—Little Marvel.  
 Peas—Everbearing.  
 Radish—Vick's Scarlet Globe.  
 Radish—Long Icicle.  
 Squash—Summer Fordhook.  
 Squash—Turk's Cap.  
 Tomato—Earliana.  
 Tomato—Stone.  
 Tomato—Ponderosa.  
 Turnip—Early Snowball.

## FIFTY-CENT COLLECTION

For the small garden. For fifty cents we will send you one packet each of

Beans—Burpee's Bush Lima.  
 Beans—Burger's Stringless Green Pod.  
 Beet—Detroit Dark Red Turnip.  
 Cabbage—Copenhagen Market.  
 Cucumber—Fordhook Famous.  
 Corn, Sweet—Golden Bantam.  
 Lettuce—Simpson's Black Seeded.  
 Lettuce—Cos, White Paris.

Muskmelon—Tip Top.  
 Onion—Ohio Yellow Globe.  
 Parsley—Fine Double Curled.  
 Peas—Little Marvel.  
 Peas—Gradus.  
 Radish—Long Icicle.  
 Tomato—Dwarf Stone.

## PARCEL POST MAP

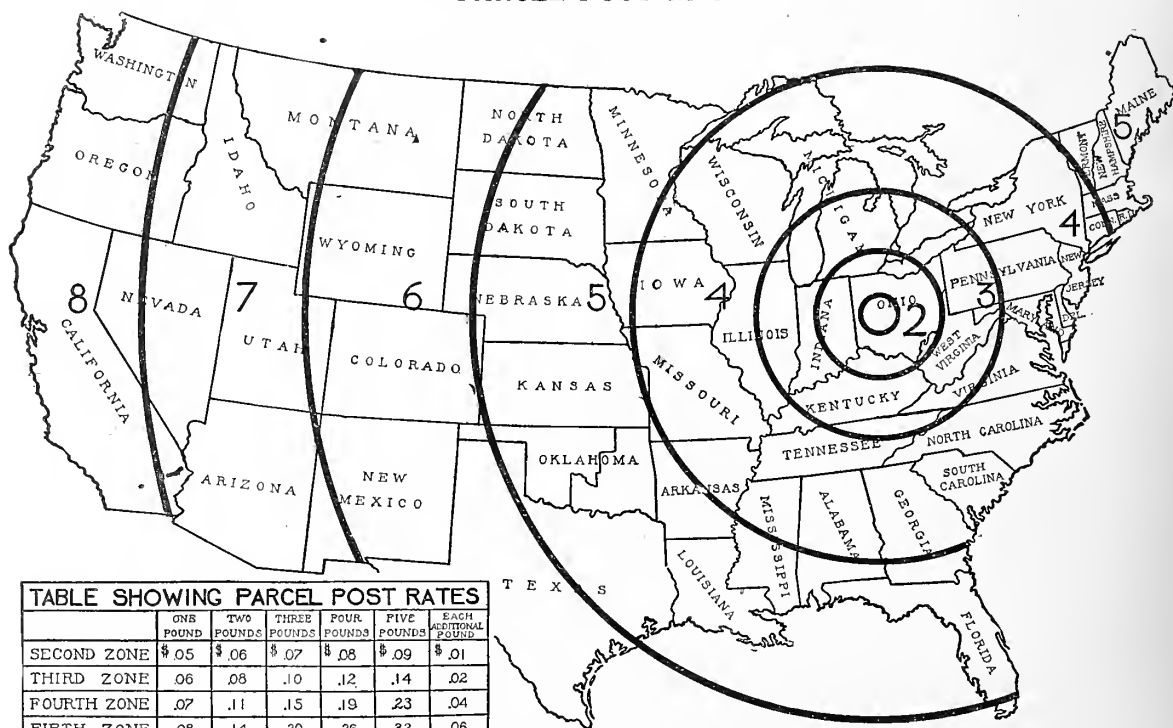


TABLE SHOWING PARCEL POST RATES

	ONE POUND	TWO POUNDS	THREE POUNDS	FOUR POUNDS	FIVE POUNDS	EACH ADDITIONAL POUND
SECOND ZONE	\$ .05	.06	.07	.08	.09	.01
THIRD ZONE	.06	.08	.10	.12	.14	.02
FOURTH ZONE	.07	.11	.15	.19	.23	.04
FIFTH ZONE	.08	.14	.20	.26	.32	.06
SIXTH ZONE	.09	.17	.25	.33	.41	.08
SEVENTH ZONE	.11	.21	.31	.41	.51	.10
EIGHTH ZONE	.12	.24	.36	.48	.60	.12

Spargel

**ASPARAGUS**

Esparrago

**C**ONTRARY to popular belief it is quite possible to grow this most delicious spring vegetable from seed. Sow the seed in early spring in good rich soil where you wish it to stand, or in beds for transplanting. Prepare a very careful seed bed and sow in rows eighteen inches apart and two inches deep. Better success will be had if the seed is soaked in warm water before planting. Thin to one inch apart, and give very careful cultivation through the entire summer. The following spring the plants will be ready for the permanent beds. Spade these beds deeply and enrich well with stable manure. Set the plants four inches deep, one to two feet apart, in rows four to six feet apart. Cultivate thoroughly the first season. Each spring a heavy application of manure should be given, with some salt to keep down the weeds. Wood ashes are also very good. Cultivate frequently until the plants meet in the rows. In cutting, remove all shoots, no matter how small. In the fall the tops, when ripe, should be cut and burned. Do not cut the shoots too late in the season. One hundred plants should, with care, supply an ordinary family.

**BONVALLET'S GIANT**—An improved Palmetto producing stronger, more vigorous shoots. Extremely rust resisting and coming into bearing a year sooner than other varieties. The season lasts longer than any other variety. Pkt., 10c; Oz., 15c; ¼ lb., 35c; Lb., \$1.35.

**COLUMBIAN MAMMOTH WHITE**—A white stalked variety, very large, tender and almost as fine flavored as the green stalked sorts. Pkt., 5c; Oz., 10c; ¼ lb., 20c; Lb., 65c.

**CONOVER'S COLOSSAL**—The oldest and best known variety. Large green stalks, early and tender. Pkt., 5c; Oz., 10c; ¼ lb., 20c; Lb., 65c.

**EARLY GIANT ARGENTEUIL**—The standard French Asparagus. It is rust resistant, vigorous and of fine flavor. Pkt., 10c; Oz., 15c; ¼ lb., 30c; Lb., 75c.

**PALMETTO**—A standard variety. Large green stalks, early, prolific and tender. Pkt., 5c; Oz., 10c; ¼ lb., 20c; Lb., 50c.

**ASPARAGUS ROOTS**

We offer only the best selected stock and vigorous growing plants. We offer 500 roots at 1,000 rates; 50 roots at 100 rates.

Varieties.	Postpaid East of Rocky Mountains.		By Express Not Prepaid.	
	Doz.	100	100	1000
Bonvallet's Giant.....	\$0.35	\$2.00	\$1.50	\$10.00
Colossal .....	.25	1.40	.90	7.00
Columbian Mammoth .....	.25	1.50	1.00	8.00
Argenteuil .....	.25	1.50	1.00	8.00
Palmetto .....	.25	1.50	1.00	8.00

**REFERENCE TABLES**

Quantity of seed requisite to produce a given number of plants and sow an acre.

Quantity per acre.	
Artichoke, 1 oz. to 500 plants.....	6 oz.
Asparagus, 1 oz. to 800 plants..	
Asparagus Roots .....	1000 to 7250
Barley .....	1 to 2 bu.
Beans, dwarf, 1 pt. to 100 ft. of drill.1	"
Beans, pole, 1 pt. to 100 hills.....	½ "
Beet, garden, 1 oz. to 100 ft. of drill.7	lbs.
Beet, Mangel, 1 oz. to 100 ft. of drill.5	"
Broccoli, 1 oz. to 5,000 plants.....	2 oz.
Brussels Sprouts, 1 oz. to 5,000 plants.2	"
Buckwheat .....	½ bu.
Cabbage, 1 oz. to 5,000 plants.	
Carrot, ¼ oz. to 100 ft. of drill.....	2½ lbs.
Cauliflower, 1 oz. to 5,000 plants.	
Celery, 1 oz. to 15,000 plants.	
Chicory .....	4 lbs.
Clover, Alsike .....	8 to 10 "
" Alfalfa or Lucerne.....	15 to 20 "
" Mammoth and Medium.....	10 to 15 "
Collards, 1 oz. to 5,000 plants.	
Corn, rice (shelled).....	2 qts.
Corn, sweet, ¼ pt. to 100 hills.....	6 "
Cowpea, in drills.....	1 to 2 bu.
Cress, ¾ oz. to 100 ft. of drill.....	12 lbs.
Cucumber, 1 oz. to 100 hills.....	1 to 3 "
Dill, ½ oz. to 100 ft. of drill.....	5 "
Egg Plant, 1 oz. to 2,000 plants.....	4 oz.
Endive, ¼ oz. to 100 ft. of drill.....	4½ lbs.
Gourd, 2 oz. to 100 hills.	
Grass, Blue, Kentucky.....	40 lbs.
" Blue, Canada .....	40 "
" Hungarian and Millet.....	50 "
" Meadow Fescue .....	35 "
" Mixed Lawn .....	50 to 70 "
" Red Top Fancy.....	8 to 10 "
" Timothy .....	12 "
" Orchard, Perennial Rye and	
Wood Meadow .....	30 "

Quantity per acre.	
Horse Radish Roots.....	10000 to 15000
Kale, 1 oz. to 5,000 plants, or 200 feet of drill.	
Kohl Rabi, ½ oz. to 100 ft. of drill..4	lbs.
Leek, ¾ oz. to 100 ft. of drill.....	4 "
Lettuce, ¼ oz. to 100 ft. of drill....	3 "
Melon, Musk, 1 oz. to 100 hills....	1 to 3 "
" Water, 4 oz. to 100 hills.1½ to 4	"
Nasturtium, 2 oz. to 100 ft. of drill.15	"
Okra, 1 oz. to 100 ft. of drill.....	8 "
Onion Seed, ½ oz. to 100 feet of drill .....	4 to 5 "
Onion Seed for Sets.....	40 to 80 "
Onion Sets, 1 qt. to 40 ft. of drill....	8 bu.
Parsnip, ¼ oz. to 100 ft. of drill.....	3 lbs.
Parsley, ¼ oz. to 100 ft. of drill....	3 "
Peas, garden, 1 pint to 100 feet of drill .....	1 to 3 bu.
Peas, field .....	1 to 2 bu.
Peas, Sweet, 4 oz. to 50 feet.	
Pepper, 1 oz. to 1,500 plants.	
Pumpkin, ½ qt. to 100 hills.....	3 to 4 lbs.
Radish, ¾ oz. to 100 feet of drill .....	10 to 12 "
Ruta Baga .....	2 to 4 "
Rye .....	1 to 1½ bu.
Sage in drills.....	4 to 5 lbs.
Salsify, ¾ oz. to 100 ft. of drill.....	8 "
Spinach, ½ oz. to 100 ft. of drill....	8 "
Summer Savory .....	¾ "
Sunflower .....	8 "
Squash, Summer, 4 oz. to 100 hills....	4 "
" Winter, 8 oz. to 100 hills....	4 "
Tomato, 1 oz. to 2,000 to 3,000 plants.	
Tobacco, 1 oz. to 5,000 plants.	
Turnip, 1 oz. to 250 ft. of drill....	1 to 3 lbs.
Vetches, Winter .....	30 to 40 "

Standard weights of various articles

	Per bu.
Barley .....	48 lbs.
Beans .....	60 "
Buckwheat .....	48 "
Clover Seed.....	60 "
Corn, field, shelled..	56 "
Corn, field, on ear..	70 "
Corn, sweet, sold by measured bushel.	
Grass, Timothy....	45 "
Hungarian .....	48 "
Millet, common....	50 "
Millet, German or Golden .....	50 "
Peas, smooth.....	60 "
Peas, wrinkled....	56 "
Rape .....	50 "
Rye .....	56 "
Sugar Cane (Sorghum) .....	50 "
Vetches or Tares..	60 "

We sell the following articles by weight

Grass, Rhode Island Bent.	
" Creeping Bent.	
" Red Top Fancy.	
" Tall Meadow Oat.	
" Awnless Brome.	
" Orchard.	
" Hard Fescue.	
" Red or Creeping Fescue.	
" Tall Fescue.	
" Sheep's Fescue.	
" Meadow Fescue or English Blue Grass.	
" Perennial Rye.	
" Wood Meadow.	
" Kentucky Blue.	
" Canadian Blue.	



## Bohnen BEANS Habichuela

**A**LTHOUGH BEANS will grow on almost any kind of soil, no crop will respond more readily to fertile soil and cultivation. Well rotted manure is best, as fresh manure will often make them run to vines. Plant in well fitted ground late enough in the season so that the ground is warm and dry. Sow in rows two to three feet apart, and thin to three to six inches apart. Cover one and one-half to two inches deep. Cultivate shallow and frequently up until time of blooming. Avoid working among the Beans when they are wet, as it tends to make them rust. Lima Beans should not be planted until the latter part of May. Pole Beans are planted in hills four feet apart each way. A quart of Limas plants 100 hills; of the smaller sorts, 200 hills. A quart of Snap Beans plants 150 feet of drill.

### BEAN SHORTAGE

The crop of Beans this year is still shorter than it was last season, and not only does this include the Wax and Green Pod varieties, but even Limas. We are fortunate enough to have moderate sized stocks of everything listed, in good quality of seed, and we are asking only a little higher price than we could sell these Beans for at wholesale. Lima Beans and Pole Beans are in better supply than the Dwarf Bush varieties. There is not only a great shortage of the Beans, but an unprecedented demand occasioned by the war, the allies actually paying what in some years would look like good seed prices for Beans to feed the armies.

Unquestionably all seedsmen will sell out on Beans before the season is over with this year, and if you want any of this seed at all we advise placing early orders. Our stock is grown with its usual care, and is fully up to standard in quality.

### BUSH BEANS—WAX PODDED

**BURPEE'S NEW KIDNEY WAX**—Moderately early. The pods, with us, about six inches, flat, very meaty, brittle, with no strings and a good yield. The quality of this bean is excellent. Pkt., 10c; Pt., 30c; Qt., 60c; Pk., \$4.00.

**CURRIE'S RUST PROOF GOLDEN WAX**—Very early. This variety has handsome, flat pods, moderately meaty, five inches long, with some strings. The yield is unusually heavy. We find it to be entirely free from rust. Pkt., 10c; Pt., 30c; Qt., 60c; Pk., \$3.50.

**DAVIS' KIDNEY WAX**—The midseason sort, pods six inches, smooth, fairly meaty, has some strings. The yield is excellent. This variety is excellent used dry for baking. As a string bean use while the pods are young. Pkt., 10c; Pt., 30c; Qt., 60c; Pk., \$4.00.

**GOLDEN EYE WAX**—Early and productive. Pods five inches, flat and meaty. There are some stings. Very hardy and rust proof. Pkt., 10c; Pt., 30c; Qt., 60c; Pk., \$3.50.

**GOLDEN WAX IMPROVED**—Medium early and productive. Pods are about four inches, flat, meaty, stringless. Very rust resistant. Ours is the best Grenell strain. Pkt., 10c; Pt., 30c; Qt., 60c; Pk., \$3.75.

**HODSON WAX**—Late, but very vigorous and hardy. Pods are large, brittle and very tender. Free from rust and very prolific. Pkt., 10c; Pt., 25c; Qt., 50c; Pk., \$3.50.

**KEENEY'S RUSTLESS GOLDEN WAX**—Fairly early. An improved Golden Wax that is entirely rust-proof. The vines have short runners; the pods are five inches long, flat, brittle and quite stringless. A superior sort for shelling, rich and delicious. Pkt., 10c; Pt., 25c; Qt., 50c; Pk., \$3.50.

**KEENEY'S STRINGLESS REFUGEE WAX**—One of the very finest dwarf wax beans. The pods are five inches long, round, meaty, very tender and with no strings. The quality is excellent and the yield is splendid. A standard canning variety. Pkt., 10c; Pt., 25c; Qt., 50c; Pk., \$3.75.

**NEW SURE CROP STRINGLESS WAX**—Early. Very vigorous and drouth resistant variety. Pods five inches, round, meaty and tender. Very good cropper. Pkt., 10c; Pt., 25c; Qt., 50c; Pk., \$3.25.

**BLACK PENCIL POD WAX**—Early, productive, medium length pods, round, meaty, stringless. Pkt., 10c; Pt., 25c; Qt., 50c; Pk., \$3.75.

**PROLIFIC GERMAN BLACK WAX**—Early. A round podded bean of very good quality. Black seeded, meaty and stringless. A very good yielding variety. Pkt., 10c; Pt., 25c; Qt., 50c; Pk., \$3.25.

**ROUND POD KIDNEY WAX**—One of the best midseason sorts. The same as Wardwell's Kidney, but with round pods. Pods long, meaty and stringless. An excellent yielder and much used as a canning variety. Pkt., 10c; Pt., 25c; Qt., 50c; Pk., \$3.00.

**BRITTLE WAX**—Very early. The pods are almost perfectly round, five inches long, meaty, very tender, brittle and stringless. A splendid yielder. (Crop failure.)

**WARDWELL'S KIDNEY WAX**—Very early. Handsome, long, yellow, flat pods, fairly meaty and quite stringless. Excellent for home use and widely used by market gardeners. Pkt., 10c; Pt., 20c; Qt., 35c; Pk., \$2.75.

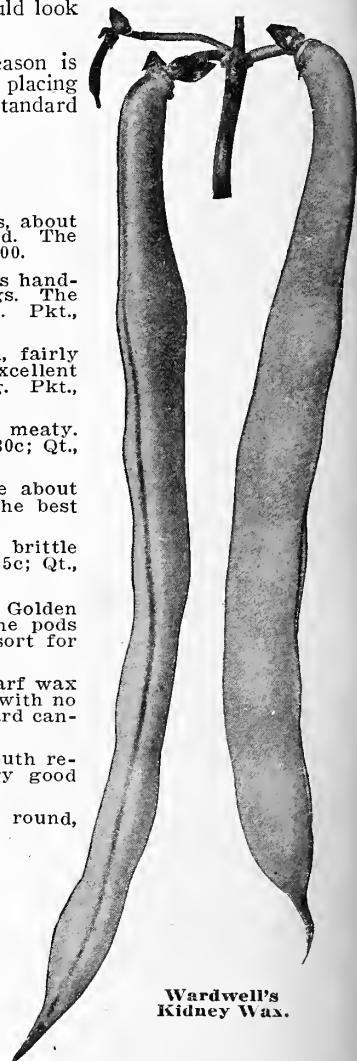
### GREEN PODDED BUSH BEANS

**BOUNTIFUL**—Very early. Pods five inches, flat and loose; not very meaty and has some strings. An excellent yielder and a sure cropper. Extensively used as a field crop for soup beans. Pkt., 10c; Pt., 25c; Qt., 40c; Pk., \$3.00.

**EXTRA EARLY REFUGEE**—From ten days to two weeks earlier than the Late Refugee and of the same high quality. Pods five inches long, round and meaty. A splendid yielder and a good shipper. Pkt., 10c; Pt., 25c; Qt., 40c; Pk., \$3.00.



Burpee's  
Kidney  
Wax.



Wardwell's  
Kidney Wax.



Fordhook Favorite  
Bush.

**BOSTON SMALL PEA**—A standard field variety that yields very well, produces small, white peas, suitable for soup or baking. One of the best for this purpose. Pkt., 10c; Pt., 25c; Qt., 40c; Pk., \$2.50.

**FORDHOOK FAVORITE**—Early. One of the best both in yield and in quality. Pods are large, thick-meated, round, very tender, absolutely free from strings and fine flavored. The beans are white and are splendid either for snap or soup beans. Pkt., 15c; Pt., 30c; Qt., 50c; Pk., \$3.50.

**FULL MEASURE**—A new main crop variety of great merit. Medium early; pods five inches, round, meaty, stringless and of excellent quality. Very productive and an excellent shipper. Pkt., 10c; Pt., 25c; Qt., 40c; Pk., \$3.00.

**HORTICULTURAL CRANBERRY**—Late and productive. Broad, flat, loose, stringless pods. The beans are buff splashed with red and are chiefly used for shell-ing. Pkt., 10c; Pt., 25c; Qt., 40c; Pk., \$3.00.

**KEENEY'S STRINGLESS GREEN REFUGEE**—An exact duplicate of the old 1,000 to 1, except that it is a week earlier and absolutely stringless. It yields well, is splendid for the market gardener and very desirable for canners on account of its profusion of small round pods of fine flavor and perfect stringlessness. Pkt., 10c; Pt., 20c; Qt., 50c; Pk., \$3.50.

**LONGFELLOW**—Very early. Pods long, straight, meaty, green. Some strings. Pkt., 10c; Pt., 25c; Qt., 40c; Pk., \$3.00.

**LONG YELLOW SIX WEEKS**—Pods five inches, flat, fairly meaty but has some strings. Good if eaten young and is an excellent shipper. Pkt., 10c; Pt., 25c; Qt., 40c; Pk., \$3.00.

**REFUGEE or THOUSAND TO ONE**—Late. Vines of vigorous growth, producing a great abundance of long, round, fleshy, greenish-yellow pods. Very much used for canning. Pkt., 10c; Pt., 25c; Qt., 40c; Pk., \$2.75.

**STRINGLESS GREEN POD**—Very early. The most widely grown of any of the green podded bush beans. Round podded, thick meated, tender and stringless. A very good yielder. Too much can hardly be said in praise of this variety. Pkt., 10c; Pt., 25c; Qt., 45c; Pk., \$3.25.

**GIANT STRINGLESS GREEN POD**—This bean matures about a week later than Extra Early Red Valentine and makes a good succession with Stringless Green Pod when planted together. The plants are of strong growth, pods round, thick-meated, brittle and stringless. Pkt., 10c; Pt., 25c; Qt., 40c; Pk., \$3.00.

**VALENTINE EXTRA EARLY**—Moderately early. Pods four inches, round, meaty, has strings. Yield is good, and the variety is very much liked by market gardeners. Pkt., 10c; Pt., 25c; Qt., 40c; Pk., \$3.00.

## POLE or RUNNING BEANS

Note Reasonable  
Prices

These varieties are of vigorous running growth and need stout poles or wire supports on which to climb. They are later than the bush beans, but are also more productive, and their being up on poles makes them easier to pick.

**BURGER'S STRINGLESS GREEN POD**—Decidedly earlier than Kentucky Wonder with a longer season of productiveness. The handsome pods are borne in clusters, are 6 to 8 inches long, meaty, tender, fine flavored and entirely stringless. Very prolific. Pkt., 10c; Pt., 20c; Qt., 35c; Pk., \$2.75.

**DUTCH CASE KNIFE**—A very prolific, loose climbing pole bean. Pods are broad, flat, loose and of excellent quality. A good corn bean and can be used either for snap, shelled or dry shell beans. The beans are white in color. Pkt., 10c; Pt., 20c; Qt., 35c; Pk., \$2.50.

**GOLDEN CLUSTER WAX**—A very handsome variety, with pods six inches long, flat, snaps very well, and produces its pods in large clusters. Vines large, strong growing, vigorous and hardy. Pods golden-yellow to creamy-white. Excellent quality. Pkt., 10c; Pt., 20c; Qt., 45c; Pk., \$3.50.

**KENTUCKY WONDER or OLD HOMESTEAD**—One of the most popular and practical of the green podded pole beans. Very large, dark green pods, meaty, tender, stringless and deeply "saddle backed." Will continue to bear to the end of the season. Pkt., 10c; Pt., 20c; Qt., 35c; Pk., \$3.00.

**KENTUCKY WONDER WAX**—Equal in quality to Old Homestead, but the pods are broad and a golden waxy color that makes them very attractive. This variety is likewise an abundant yielder and we consider it the best of the yellow-podded pole beans. Pkt., 10c; Pt., 20c; Qt., 35c; Pk., \$3.00.

**LAZY WIFE**—A midseason sort. The pods are about four inches, green, flat, fairly meaty and stringless. The beans have a rich buttery flavor when cooked while young and make excellent winter shell beans. Pkt., 10c; Pt., 20c; Qt., 30c; Pk., \$2.50.

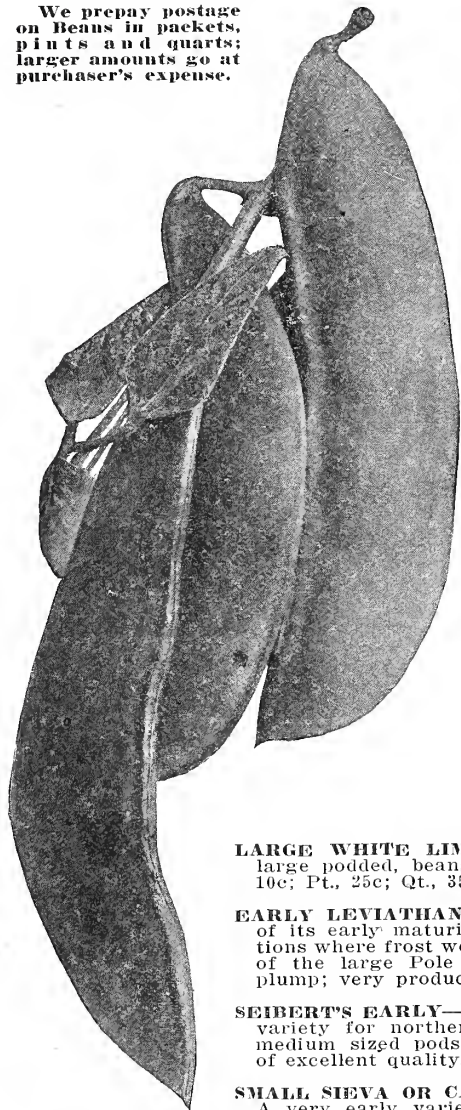
**WHITE CREASEBACK**—A popular early, green-podded variety, meaty, stringless and of good quality. The pods ripen at the same time and the yield is very heavy. The beans are white and are very good to shell for winter use. Pkt., 10c; Pt., 20c; Qt., 30c; Pk., \$2.50.



Kentucky Wonder Wax.



We prepay postage on Beans in packets, pints and quarts; larger amounts go at purchaser's expense.



Seibert Lima.

## BUSH LIMA BEANS

**BURPEE'S BUSH LIMA**—A true bush form of the Large White Lima Bean. Fairly early, pods of good size and well filled. Strong plants with thick stems, furnishing a good support. The quality is excellent and also the yield. Pkt., 10c; Pt., 25c; Qt., 50c; Pk., \$4.00.

**BURPEE'S IMPROVED BUSH LIMA**—An improved strain of the Burpee Bush Lima, having larger pods and larger beans, more of them being borne in a pod than with the older strain. This variety is also earlier than the Burpee's Bush, maturing a week before it. A very heavy yielding Lima of fine quality. Pkt., 10c; Pt., 25c; Qt., 50c; Pk., \$4.25.

**FORDHOOK BUSH LIMA**—This variety is decidedly our preference among the Bush Lima Beans. It is nearly as early as any. The pods are about four inches long, of medium size, well filled, the beans very thick, tender and of fine quality. The plants are very robust, never coming into contact with the ground. With us it yields continuously all summer, in this respect being greatly superior to any other sort. Pkt., 10c; Pt., 25c; Qt., 50c; Pk., \$4.25.

**HENDERSON'S BUSH LIMA OR DWARF SIEVA**—The earliest of the Bush Limas and valuable for that reason. The plants are small, of compact growth, and the short green pods bear three or four of the small "butter beans." The quality is excellent and the yield is good. This variety is very free from mildew. Pkt., 10c; Pt., 25c; Qt., 35c; Pk., \$3.00.

## POLE LIMA BEANS

**CARPENTERIA**—Pods are about four and one-half inches long, medium sized, one containing about four beans. An extra good yielder, the beans being not quite so large around as some other varieties but very plump, of a beautiful green tint, and of exceptional quality. One of the earliest varieties. Pkt., 10c; Pt., 25c; Qt., 35c; Pk., \$3.25.

**CHALLENGER**—Dreer's Improved or "Potato" Lima. The vines are vigorous and productive, but pods mature later than the flat varieties. The pods are about four inches in length and the beans are very plump and of the finest quality. Pkt., 10c; Pt., 25c; Qt., 35c; Pk., \$3.25.

**IDEAL POLE LIMA**—A selection of the Large White Lima, and very similar to it. The pods are large and well filled and the beans are of the flat type, white with a slight greenish tinge. The yield is good and the quality excellent. Matures early enough for main crop. Pkt., 10c; Pt., 25c; Qt., 35c; Pk., \$3.00.

**KING OF THE GARDEN LIMA**—This is the largest of the Limas and is one of the best for the main crop. It is a very strong grower and very large podded, the pods being very uniform. The beans are medium to large, flat, greenish-white in color. It is a heavy yielder and a variety that climbs and produces until the end of the season. Pkt., 10c; Pt., 25c; Qt., 50c; Pk., \$3.25.

**LARGE WHITE LIMA**—The old standard strain. Rather late, large podded, beans flat and large. A splendid yielder. Pkt., 10c; Pt., 25c; Qt., 35c; Pk., \$2.75.

**EARLY LEVIATHAN**—This variety is very valuable on account of its early maturing quality, making it very useful in situations where frost would catch a less hardy sort. It is the earliest of the large Pole Limas. The beans are medium sized and plump; very productive. Pkt., 10c; Pt., 25c; Qt., 35c; Pk., \$3.00.

**SEIBERT'S EARLY**—A vigorous grower, hardy and early. A fine variety for northern climates. It produces an abundance of medium sized pods well filled with large plump tender beans of excellent quality. Pkt., 10c; Pt., 25c; Qt., 35c; Pk., \$3.00.

**SMALL SIEVA OR CAROLINA**—The "Butter Bean" of the South. A very early variety producing small pods with three small beans of fine quality. A very good yielder. Pkt., 10c; Pt., 25c; Qt., 35c; Pk., \$2.50.

## Spargelkohl **BROCCOLI** Brocoli

This vegetable is very similar to the Cauliflower, but being hardier can be grown farther north. Sow as early in the spring as the ground can be worked, in shallow drills, and when four inches high transplant to rows two feet apart each way. Culture is the same as for cabbage and the same insecticides should be used for insect attacks.

**LARGE EARLY FRENCH**—The most dependable variety. Plants are very hardy, producing medium-sized, compact heads of good quality. Pkt., 10c; Oz., 30c; ¼ Lb., \$1.00; Lb., \$3.75.

## Rosenkohl **BRUSSELS SPROUTS** Bretones de Bruselas

Brussels Sprouts are miniature cabbages borne on the side of a plant stalk. Handle the same as cabbage, transplanting to rows two feet apart each way. In this latitude must be started early in order that they may mature.

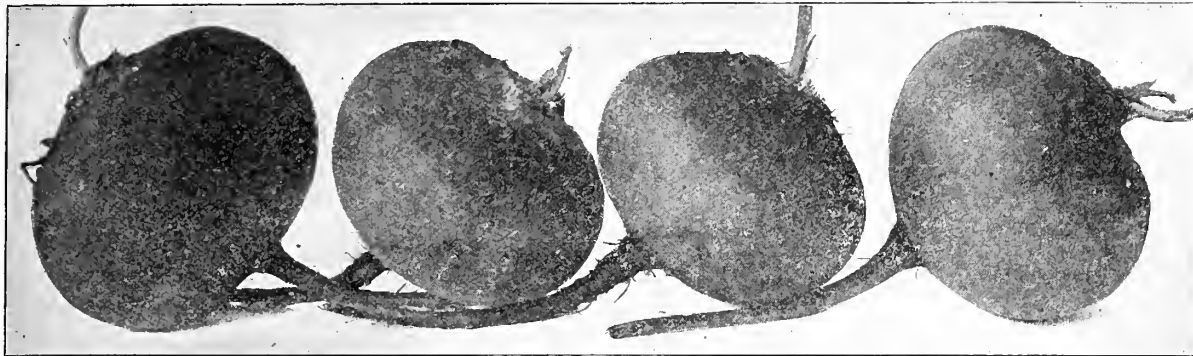
**LONG ISLAND IMPROVED**—A splendid variety much grown for the New York market. Dwarf habit, prolific and of very fine quality. Pkt., 10c; Oz., 30c; ¼ Lb., 85c.

**PARIS MARKET**—A standard variety, half dwarf, very prolific, the sprouts being small, hard and of very good flavor. Pkt., 5c; Oz., 15c; ¼ Lb., 40c; Lb., \$1.40.



Lima Challenger.





Crosby's Egyptian.

Rube **B E E T** Remolacha

**B**EETS are best planted on rather light, rich, well manured soil. For early use, plant such sorts as Detroit Dark Red and Crosby's Egyptian in hot beds, transplanting later to out of doors. Sow outside as early as the ground will permit, one inch deep, in rows eighteen inches apart. For winter use, sow the turnip varieties in June, covering two inches deep. Store the roots in cellar, covering with sand or light soil, or bury them in pits such as are used for potatoes. Sow seven pounds of seed per acre.

**BASSANO**—Early. Beets are turnip-shaped, smooth, and of a light red color. Flesh is tender, pink, zoned with white. The young tops are excellent for greens. Pkt., 5c; Oz., 10c; ¼ Lb., 25c; Lb., 75c.

**BASTIAN'S EARLY BLOOD TURNIP**—Largest of the turnip-shaped beets. Tops purple, flesh blood red with lighter zones. Very tender and remains in its prime a long time. Pkt., 5c; Oz., 10c; ¼ Lb., 25c; Lb., 75c.

**CROSBY'S EGYPTIAN**—A very early, round shaped beet. Large size for an early beet and remains in its prime for a long time. The light red meat is attractively zoned and of the finest quality. Pkt., 5c; Oz., 10c; ¼ Lb., 30c; Lb., 85c.

**DETROIT DARK RED TURNIP**—Deservedly a most popular sort. Early, top-shaped, deep red, zoned attractively with lighter shade. Excellent either for home use or market gardeners. Flesh tender and sweet. Pkt., 5c; Oz., 10c; ¼ Lb., 30c; Lb., \$1.00.

**EARLY BLOOD TURNIP**—A large turnip-shaped beet with large purple tops. Smooth and even with blood-red flesh of good texture. Later than Detroit Dark Red. Pkt., 5c; Oz., 10c; ¼ Lb., 30c; Lb., 90c.

**DEWING'S IMPROVED BLOOD TURNIP**—Largely used for main crop; tops medium sized; roots turnip-shaped; flesh crimson, zoned with lighter shade. Pkt., 5c; Oz., 10c; ¼ Lb., 25c; Lb., 75c.

**ECLIPSE**—Very early. Tops small; roots round, smooth, dark; flesh bright red, attractively zoned and of good quality. An excellent early beet, either for home use or for bunching for market. Pkt., 5c; Oz., 10c; ¼ Lb., 30c; Lb., \$1.00.

**EDMAND'S BLOOD TURNIP**—Early. Round, medium sized, uniformly smooth and of good quality. An excellent market beet. Color lighter than Detroit Dark Red. Pkt., 5c; Oz., 10c; ¼ Lb., 25c; Lb., 90c.

**EXTRA EARLY EGYPTIAN**—A splendid variety for forcing or for first early crop outdoors. Small tops; turnip shaped, flat bottomed, blood red color and very smooth. Pkt., 5c; Oz., 10c; ¼ Lb., 25c; Lb., 90c.

**HALF LONG BLOOD**—The well known variety for winter use. Half long, deep red, smooth and of splendid quality. Pkt., 5c; Oz., 10c; ¼ Lb., 25c; Lb., 90c.

**KELWAY'S CHOICE DWARF DARK (New)**—We believe this is the very best half long beet that we ever saw. It has large purple tops, roots very dark colored, smooth, uniform, very sweet, and of the best flavor. A splendid exhibition variety or good for the home table. Our strain comes direct from the originators and our stocks are simply as good as they can possibly be. Pkt., 10c; Oz., 15c; ¼ Lb., 45c; Lb., \$1.50.

**SUGAR BEETS**

**S**UGAR BEETS require the same culture as Mangels, excepting that they may be grown somewhat closer together. While they do not attain the immense size of the Mangels, their nutritive value is higher, and this makes up to some extent for the difference in yield.

**GIANT HALF SUGAR ROSE**—Largely used for stock feeding. Large tops; roots half long, rose colored, half out of ground. Highly nutritious and a good producer. Pkt., 5c; Oz., 10c; ¼ Lb., 15c; Lb., 50c. Express not paid, 5 Lbs., \$1.75.

**KLEIN WANZLEBEN**—The standard sugar factory beet and also very extensively used for feeding. It is said to be a great milk producer. Roots larger than Vilmorin's Improved, tapering, white, and mostly underground. A heavy yielder. Pkt., 5c; Oz., 10c; ¼ Lb., 15c; Lb., 50c. Express not paid, 5 Lbs., \$1.75.

**LANE'S IMPERIAL**—Chiefly used for feeding. Large tapering roots, smooth, rose colored; flesh snow-white, fine grained and very sweet. Pkt., 5c; Oz., 10c; ¼ Lb., 15c; Lb., 50c. Express not paid, 5 lbs., \$1.75.

**VILMORIN'S IMPROVED**—Used both for feeding and by the sugar factories. Tops large; roots half long, large, smooth, even grayish-white in color, and grows mostly underground. Flesh is white, and contains about 16% sugar. A very good yielder and one of the best keepers. Our stock is grown in France and is the best obtainable. Pkt., 5c; Oz., 10c; ¼ Lb., 15c; Lb., 50c. Express not paid, 5 Lbs., \$1.75.



Detroit Dark Red.

## MANGEL - WURZELS

**STOCK BEETS** are splendid feed for stock in winter and should be used more extensively in this country. They require a rich, deep soil that has been deeply plowed and well manured. Sow in May or June in rows eighteen inches to two feet apart, and thin to eight inches between plants. Dig the crop as soon as frost occurs. They may be stored by heaping six feet deep on a dry sloping situation, covering first with bags or canvas, then six inches deep with straw or fodder and over that a light layer of earth. When this layer of earth becomes frozen cover with more, and in this way the roots will not heat, but will be kept in perfect order. Sow about six pounds of seed per acre.

**GIANT YELLOW INTERMEDIATE**—A very large, long, smooth variety that grows over half out of ground, making it very easy to harvest. The skin is golden-yellow color and the flesh creamy-white and sweet. A good keeper and a very heavy cropper. Pkt., 5c; Oz., 10c; ¼ Lb., 15c; Lb., 45c. Express not paid, 5 Lbs., \$1.60; 10 Lbs., \$3.20.

**GOLDEN TANKARD**—Large, smooth, yellow variety, growing two-thirds out of ground. Neck and tap root small, yellow meated, and not quite so large as Giant Yellow Intermediate. Pkt., 5c; Oz., 10c; ¼ Lb., 15c; Lb., 45c. Express not paid, 5 Lbs., \$1.60; 10 Lbs., \$3.20.

**KELWAY'S CRIMSON KING (New)**—The grower claims for this Mangel not only a good yield and ease in harvesting, but the best feeding qualities of any variety grown; they say the stock will leave other varieties for it. We put this into stock last year for the first time, tested it out in our trial grounds this season, and it gave us perfect satisfaction. (Crop failure.)

**MAMMOTH PRIZE LONG RED**—A very heavy cropper. Tops large; roots long, crimson color, borne two-thirds out of ground; flesh white tinted with pink. Pkt., 5c; Oz., 10c; ¼ Lb., 15c; Lb., 50c. Express not paid, 5 Lbs., \$1.50; 10 Lbs., \$3.00.



Eclipse.

## SWISS CHARD or SPINACH BEET

**THIS VARIETY OF BEET** makes only tops and is used exclusively for greens. Only a few plants need be used, as they will continue to grow all summer in spite of frequent cuttings. Sow early in the spring in rows sixteen inches apart, and thin to twelve inches between plants.

**LUCULLUS**—The plants grow from two to two and one-half feet tall, with stems as thick and broad as Rhubarb, and ten inches below the leaves. These may be cooked and served the same as Asparagus, and are very delicious. The leaves are very crumpled and are cooked like Spinach. Pkt., 5c; Oz., 10c; ¼ Lb., 30c.

### Table Prepared from Cornell Experiments and Henry's Analyses.

Root Crop.	Yield.	Water.	Dry matter.	Crude protein.	Carbo- hydrates.
	Tons.	Per cent.	Lbs.	Lbs.	Lbs.
Sugar Beet .....	23.8	85.1	7,090	618.8	4,664.8
Mangel .....	23.6	89.1	5,155	472.0	2,596.0
Rutabaga (Swede) ....	23.0	88.6	4,331	460.0	3,726.0
Carrot .....	12.6	87.6	3,134	201.6	1,940.4
White Turnip .....	12.9	89.6	2,680	232.2	1,651.2

New Swiss Chard, Lucullus.

## HERBS

**A SUPPLY OF HERBS** will be found very useful and necessary. They may be freshly gathered for flavoring soups, meats, etc., or tied in bunches and dried for use during the winter. In some cases the seed is saved. These can be dried and threshed when ripe. Varieties marked with an asterisk (\*) are hardy perennials and need not be replanted except when old plants become exhausted.

**ANISE**—Seeds aromatic and carminative. Pkt., 5c; Oz., 10c.

**BALM**—For culinary purposes. Pkt., 5c; Oz., 15c.

**BASIL**—Sweet. Culinary herb used for flavoring soups, etc. Pkt., 5c; Oz., 10c.

**BORAGE**—Leaves used as a salad. Pkt., 5c; Oz., 15c.

**\*CARAWAY**—For sowing. Used in flavoring liquors and bread. Pkt., 5c; Oz., 10c.

**\*CATNIP**—Has medicinal qualities. Pkt., 5c; Oz., 30c.

**CORIANDER**—Seeds aromatic. For sowing. Pkt., 5c; Oz., 10c.

**DILL**—For sowing. Seeds used for flavoring vinegar. Pkt., 5c; Oz., 10c.

**\*FENNEL**—Sweet. Seeds aromatic; for flavoring. Pkt., 5c; Oz., 10c.

**\*HOREHOUND**—Has medicinal qualities. Pkt., 5c; Oz., 15c.

**HYSSOP**—Has medicinal qualities. Pkt., 5c; Oz., 15c.

**\*LAVENDER (True)**—For oil and distilled water. Pkt., 5c; Oz., 20c.

**MARJORAM**—Sweet. Is used in seasoning. Pkt., 5c; Oz., 15c.

**\*ROSEMARY**—Yields an aromatic oil and water. Pkt., 5c; Oz., 35c.

**\*RUE**—Said to have medicinal qualities. Pkt., 5c; Oz., 25c.

**SAFFRON**—Is used in medicine, and also in dyeing. Pkt., 5c; Oz., 10c.

**SAVORY**—Summer. Is used as a culinary herb. Pkt., 5c; Oz., 10c.

**\*SAGE**—Broad leaf. A culinary herb; also used in medicine. Pkt., 5c; Oz., 15c.

**\*THYME**—Broad-leaved English. Is used as a seasoning. Pkt., 5c; Oz., 30c.

**\*WORMWOOD**—Has medicinal qualities. Pkt., 5c; Oz., 20c.



Kohl **CABBAGE** Col Repello

Cabbage in Our Trial Grounds.

**C**ABBAGE requires a fairly rich soil, well manured and well drained. Good seed is extremely important with this crop. Our stocks come from the best growers and are vastly superior to common seed. Start the plants in hot-beds and set out as soon as danger of freezing is over, planting twelve to eighteen inches apart in rows two to three feet wide. Frequent and thorough cultivation should be given. The green worms can be controlled by using pyrethrum powder, Hammond's Slug Shot or Paris Green. Root maggots can be killed by digging out a cup-like hole around the stem and applying kerosene emulsion or some similar insecticide. Planting the ground to some other crop for several seasons is the surest remedy for the disease called club-root. To prevent cabbage fly, dust with air slaked lime, wood ashes or tobacco dust.

**FIRST EARLY VARIETIES**

**COPENHAGEN MARKET**—Matures about July 1st. This variety appears to stand in a class by itself. It is the very earliest sort in our trial grounds, and also one of the very best. Uniform, with splendid sized heads; round, and with only moderate amount of loose or outside leaves. We believe this to be the very best early cabbage on the market today, and we know our stock to be of the very best. Pkt., 10c; ½ Oz., 20c; Oz., 30c; ¼ Lb., \$1.00; Lb., \$3.60.

**EUREKA FIRST EARLY**—A splendid first early variety for those who like a flat headed cabbage. Heads are small, flat, compact and very uniform. Pkt., 5c; ½ Oz., 15c; Oz., 25c; ¼ Lb., 80c; Lb., \$2.75.

**EXTRA EARLY EXPRESS**—Pointed, solid heads that ripen about with Early Jersey Wakefield. A good early variety. Pkt., 5c; ½ Oz., 15c; Oz., 25c; ¼ Lb., 80c; Lb., \$2.75.

**EARLY JERSEY WAKEFIELD**—Deservedly one of the most popular early varieties. Small heads are very solid, conical and with few waste leaves. Our stock is of the best and runs very true and uniform. Pkt., 5c; ½ Oz., 15c; Oz., 25c; ¼ Lb., 80c; Lb., \$2.75.

**EARLY SPRING**—Flat, medium large, very solid and occupying a small amount of space. A splendid first early, flat-headed cabbage. Pkt., 5c; ½ Oz., 15c; Oz., 25c; ¼ Lb., 80c; Lb., \$2.75.

**SECOND EARLY AND INTERMEDIATE SORTS**

**ALL HEAD**—This is undoubtedly one of the best second early cabbages. The heads are large, flat, solid, with a moderate amount of waste leaves. It is well adapted for kraut, and by planting late may be used for a winter cabbage. Pkt., 5c; ½ Oz., 15c; Oz., 25c; ¼ Lb., 80c; Lb., \$2.50.

**ALL SEASONS**—A very uniform and dependable variety that matures a little later than All Head. Heads are flat, solid, and the quality is very fine. Equally good for a winter cabbage if planted late, and from this fact it gets its name. Pkt., 5c; ½ Oz., 15c; Oz., 25c; ¼ Lb., 80c; Lb., \$2.75.

**BRUNSWICK**—Late summer sort; large, uniform and dependable. Similar to but a little larger than Early Summer and Early Flat Dutch. Pkt., 5c; ½ Oz., 15c; Oz., 20c; ¼ Lb., 65c; Lb., \$2.00.

**CHARLESTON or LARGE WAKEFIELD**—This variety is a strain of Early Jersey Wakefield that matures about ten days later and produces heads about twice as large. It is not so pointed, but grows equally as solid. A standard sort, and our seed is of the best strain. Pkt., 5c; ½ Oz., 15c; Oz., 25c; ¼ Lb., 70c; Lb., \$2.50.

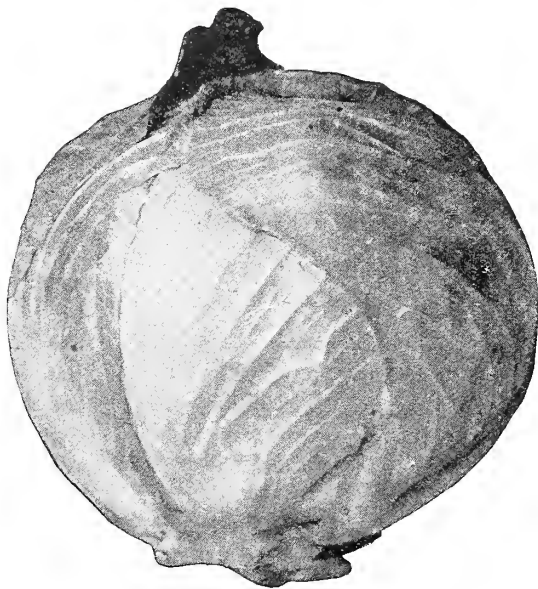
**GLORY OF ENKHUIZEN**—Matures about July 5th to 10th. In our trial grounds no other cabbage maturing at the same time as this quite equals it. The heads are splendidly uniform, round, very attractive in appearance and the heaviest variety which we have at that time. Splendid either to market or for home use. Our stock of this great variety simply can't be beaten. Pkt., 5c; ½ Oz., 15c; Oz., 25c; ¼ Lb., 75c; Lb., \$2.50.

**EARLY DWARF FLAT DUTCH**—A large, smooth heading, second early sort; short stemmed and hardy. Later than All Head; a standard variety. Pkt., 5c; ½ Oz., 15c; Oz., 25c; ¼ Lb., 70c; Lb., \$2.25.

**EARLY SUMMER**—A large Drumhead cabbage maturing ten days later than Wakefield. Heads are large, flat and solid. One of the very best second early sorts. Pkt., 5c; ½ Oz., 15c; Oz., 25c; ¼ Lb., 60c; Lb., \$2.00.

**EARLY WINNINGSTADT**—Heads about like Wakefield, but later. The bluish-green leaves are very resistant both to hot sun and to insect attacks. Very solid and uniform. A splendid kraut variety. Pkt., 5c; ½ Oz., 15c; Oz., 25c; ¼ Lb., 70c; Lb., \$2.00.





Copenhagen Market.

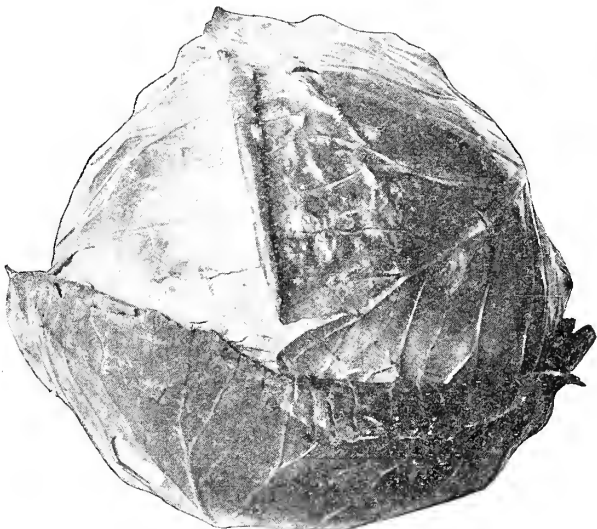
**IMPROVED AMERICAN SAVOY**—A little later than the Early Ulm, larger, equally as good in quality and it stands hot weather better. Leaves are very crinkled, making a striking looking cabbage. Pkt., 5c;  $\frac{1}{2}$  Oz., 15c; Oz., 25c;  $\frac{1}{4}$  Lb., 75c; Lb., \$2.25.

**IMPROVED LARGE RED DUTCH**—A standard variety. Heads of large size, slightly rounded, seven to eight inches in diameter. Pkt., 5c; Oz., 25c;  $\frac{1}{4}$  Lb., 75c; Lb., \$2.75.

**LARGE LATE DRUMHEAD**—A large, deep headed sort with few outer leaves and of very good quality. A sure cropper whose excellence is well known by gardeners. Pkt., 5c;  $\frac{1}{2}$  Oz., 15c; Oz., 25c;  $\frac{1}{4}$  Lb., 75c; Lb., \$2.00.

**MAMMOTH ROCK RED**—The largest and surest heading of the red cabbages. Medium length stem; head medium large, round, solid, and of a handsome dark red color that is carried into the heart. Pkt., 5c;  $\frac{1}{2}$  Oz., 15c; Oz., 25c;  $\frac{1}{4}$  Lb., 75c; Lb., \$2.60.

**PREMIUM FLAT DUTCH**—A standard winter variety; large headed, late, flat, very solid and of excellent quality; a splendid keeper. Can be grown from seed sown out of doors. Pkt., 5c;  $\frac{1}{2}$  Oz., 15c; Oz., 25c;  $\frac{1}{4}$  Lb., 75c; Lb., \$2.25.



Danish Ball Head.

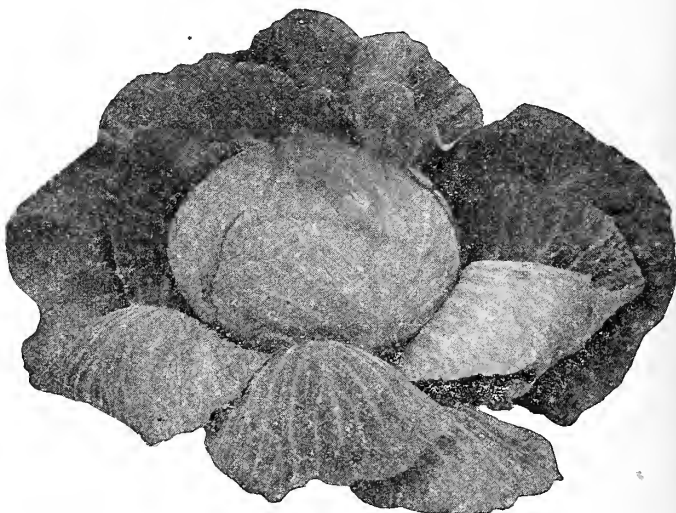
## AUTUMN AND WINTER SORTS

**AUTUMN KING or WORLD BEATER**—One of the largest fall varieties, fine for exhibition or for kraut, but somewhat lacking in quality and not a very good winter keeper. It yields enormously, and has a small amount of outer leaves. Pkt., 5c;  $\frac{1}{2}$  Oz., 15c; Oz., 20c;  $\frac{1}{4}$  Lb., 60c; Lb., \$2.10.

**DANISH BALL HEAD (Short Stemmed)**—This splendid cabbage is an improvement on the old tall stemmed strain, the stems being short with the solid ball-like heads borne close to the ground. Otherwise it is the same as the parent strain. Ours is the best Denmark seed. Pkt., 5c;  $\frac{1}{2}$  Oz., 15c; Oz., 25c;  $\frac{1}{4}$  Lb., 75c; Lb., \$2.50.

**DANISH BALL HEAD WINTER (Tall Stemmed)**—Standard winter cabbage because of the heavy, ball-like heads of superior quality. Its keeping qualities are unexcelled, and while the heads are not as large as some, they will outweigh those of any other variety, size considered. This variety has been grown for many years in Denmark, where it is prized above all others. Our seed comes direct from the best Danish growers. Pkt., 5c;  $\frac{1}{2}$  Oz., 15c; Oz., 25c;  $\frac{1}{4}$  Lb., 75c; Lb., \$2.50.

**SAVOY EARLY ULM**—One of the earliest and sweetest of the Savoy leaved cabbages, with large, round, solid heads. The leaves are very crinkled and the quality is excellent. Pkt., 5c;  $\frac{1}{2}$  Oz., 15c; Oz., 25c;  $\frac{1}{4}$  Lb., 75c; Lb., \$2.00.



Volga.

**SUCCESSION**—Equally good as a second early sort or as a winter cabbage. The large, flat, solid heads mature about a week later than Henderson's Early Summer. Pkt., 5c;  $\frac{1}{2}$  Oz., 15c; Oz., 25c;  $\frac{1}{4}$  Lb., 75c; Lb., \$2.75.

**SUREHEAD**—One of the best main crop varieties, maturing a week earlier than Premium Flat Dutch. Nearly every plant will produce a large, flat, solid head and the quality is splendid. A very dependable sort. Pkt., 5c;  $\frac{1}{2}$  Oz., 15c; Oz., 25c;  $\frac{1}{4}$  Lb., 75c; Lb., \$2.25.

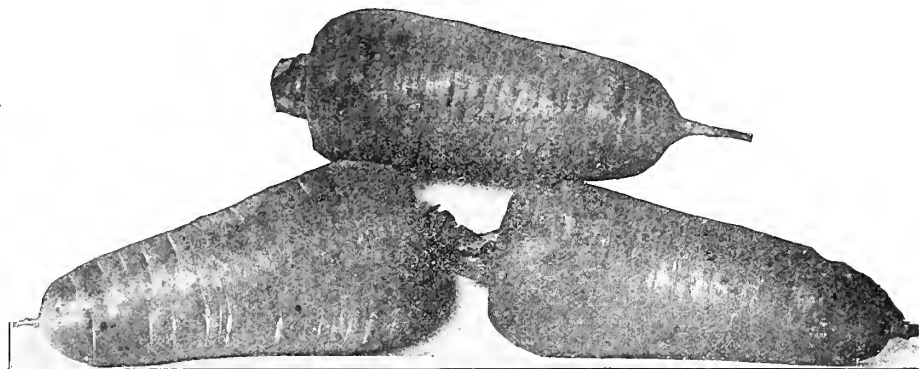
**VOLGA**—This variety came originally from Russia and is remarkably early for a cabbage that produces such large, well formed heads. For main crop it can be planted as late as July 1st with the assurance that an abundance of large heads will be matured. It is very solid and a splendid keeper. Pkt., 5c;  $\frac{1}{2}$  Oz., 15c; Oz., 25c;  $\frac{1}{4}$  Lb., 75c; Lb., \$2.50.

## CHINESE CABBAGE

**PE-TSAI (Improved Chinese Cabbage.)** This delicious new vegetable may be eaten as a salad, or, better yet, boiled and minced with butter. In appearance it resembles a Cos lettuce more than a cabbage. It is very easily grown and does well in all parts of the country. Sow at turnip planting time in rows eighteen or twenty inches apart and thin to eight inches in the row. Pkt., 10c;  $\frac{1}{2}$  Oz., 20c; Oz., 35c;  $\frac{1}{4}$  Lb., \$1.20.



Improved Long Orange.



Chantenay Carrots.

## Mohren CARROTS Zanahoria

This delicious and nutritious vegetable is not appreciated as it should be. Properly cooked, it is a great delicacy. Its feeding qualities for stock are excellent. A sandy soil is best, but any good rich soil will produce good crops. Sow in early spring in rows fifteen to eighteen inches apart and thin to three to four inches, according to size of variety. Cover the seed only half an inch and give careful cultivation throughout the season. They may be eaten either when a half inch or so in diameter or when fully grown.

**CHANTENAY**—A medium early, productive variety of very fine quality. Root five inches long, two and a half inches in diameter, deep orange, fine grained, flavor excellent. One could hardly say too much in praise of this very popular variety. Pkt., 5c; Oz., 15c; ¼ Lb., 50c; Lb., \$1.75.

**EARLY SCARLET HORN**—A small early variety suitable either for forcing or early garden use. Roots three inches by two, attractive orange color and very fine quality. Pkt., 5c; Oz., 15c; ¼ Lb., 60c; Lb., \$2.00.

**IMPROVED DANVERS HALF LONG**—A splendid market carrot and also fine for home use. Half long roots about six by two and a half inches, smooth and of good quality. Pkt., 5c; Oz., 10c; ¼ Lb., 40c; Lb., \$1.40.

**LONG RED or LONG ORANGE IMPROVED**—The standard late variety, very productive and of good quality. Roots pointed and often twelve inches long, fairly smooth and of a deep orange color. Often used for stock feeding. Pkt., 5c; Oz., 10c; ¼ Lb., 30c; Lb., \$1.00.

**NEW AMSTERDAM FORCING**—A new and quite distinct variety, unsurpassed for forcing under glass and for early market growth in the open. The roots are very uniform, about four inches long by an inch and a quarter in diameter, straight, with a blunt end and very small tap root. The flesh is of superior quality, crisp and sweet, without stringiness, and the core is very small. The foliage is very light, averaging but six inches in height. Pkt., 10c; Oz., 25c; ¼ Lb., 75c; Lb., \$2.50.

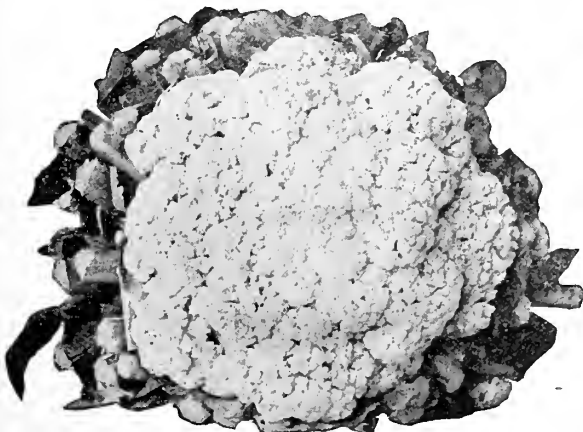
**OXHEART or GUERANDE**—About three inches long, two inches in diameter. Rather conical shape, quite early. It has excellent quality. Pkt., 5c; Oz., 10c; ¼ Lb., 25c; Lb., 90c.

**LONG WHITE BELGIAN**—Very large white variety that is used for stock feeding. Especially relished by horses. Grows half out of ground and is very productive. Pkt., 5c; Oz., 10c; ¼ Lb., 20c; Lb., 75c.



Danver's Half Long.

## Blumenkohl CAULIFLOWER Coliflor



Danish Snowball.

Culture the same as for cabbage excepting that they require more moisture and will respond readily to a very fertile soil. The later varieties must be planted very early in order to mature. One ounce of seed will produce 1,500 to 2,000 plants.

**EARLY SNOWBALL**—The early maturing strain of short leaved Snowball type of Cauliflower; also as reliable and dependable as any variety grown. The heads large, solid and beautifully white. Our stock is grown by an expert in Denmark, selected with great care, and we are sure is unsurpassed by any. Pkt., 25c; ¼ Oz., 70c; Oz., \$2.50; ¼ Lb., \$8.00.

**EXTRA EARLY DWARF ERFURT**—An early variety of dwarf habit that is largely used for forcing. A vigorous grower and a sure header. Pkt., 25c; Oz., \$2.50; ¼ Lb., \$8.00.

**DANISH GIANT**—A later variety than the two above, but very drought resistant and makes a larger head. Pkt., 25c; Oz., \$2.50; ¼ Lb., \$8.00.

**LARGE ALGIERS**—A late sort that is sure to head and frost resistant. The large leaves protect the heads admirably. Excellent quality and very popular. Pkt., 10c; Oz., 75c; ¼ Lb., \$2.00.





White Plume.

## Sellerie **CELERY** Apio.

**C**ELERY SEED should be sown indoors from February 20th to April 20th, or outdoors in April. Cover lightly, keep the beds moist, almost to wetness, and the temperature should not exceed sixty degrees. Outdoors it is sometimes necessary to furnish partial shade with lattice work that admits about half the sunlight. Keep the small plants well watered and free from weeds. Transplant when four inches high, cutting off the tops as well as part of the roots. The soil must be rich and moist or else water should be available for irrigation. Transplant, the last of June or first of July, although it is sometimes possible to mature a crop set out as late as the middle of August. In setting dig wide trenches six inches deep, four to six feet apart. Set the plants six inches apart, packing the soil firmly about the roots. Water often and keep the weeds down by cultivation and hoeing. Blanching is done by heaping up with soil or with two wide boards placed on each side of the rows and held in place by stakes or wire hoops at the top. The latter method is necessary when blanching in hot weather for the early market. Be careful not to disturb the plants while wet, as this increases the tendency to rust.

Celery growers are well aware that the quality of their seed is absolutely necessary. Probably no vegetable seed that we have is more important in this respect; not only must the seed grow, but it must be of the choicest strain. American grown seed of Golden Self-Blanching Celery never gives satisfactory results. The French growers have taken great pains with this variety, and are the most successful in producing it.

**EVANS' TRIUMPH**—One of the best of the large, late sorts. It blanches nearly white, crisp, tender and of fine flavor. A splendid keeper. Pkt., 5c; Oz., 20c; ¼ Lb., 50c; Lb., \$1.50.

**GIANT PASCAL**—An easily blanched and fine keeping large late sort. Requires the entire season to mature, is a good shipper and a good market sort. Pkt., 5c; Oz., 20c; ¼ Lb., 50c; Lb., \$1.50.

**GIANT WHITE SOLID**—A large growing, vigorous sort, of splendid quality, that matures a little earlier than Giant Pascal; blanches to a golden white. Pkt., 5c; Oz., 15c; ¼ Lb., 45c; Lb., \$1.60.

**GOLDEN SELF-BLANCHING**—The most popular variety grown. Although the stalks are large and heavy, they blanch excellently and the flavor is excelled by none. In color it is beautiful golden-yellow. Our seed of this variety is French grown, selected with greatest care, cannot be excelled. Pkt., 15c; ¼ Oz., 40c; ½ Oz., 75c; Oz., \$1.40; ¼ Lb., \$4.50; Lb., \$18.00.

**WHITE PLUME**—Very early and very easily blanched. Its attractive appearance makes one of the best early market varieties, although it does not keep quite so well as Golden Self-Blanching. Pkt., 5c; ½ Oz., 15c; Oz., 25c; ¼ Lb., 60c; Lb., \$2.25.

**WINTER QUEEN**—One of the best keepers, making it valuable for late winter and spring markets. Has the largest hearts of any celery, is creamy-white, and of splendid quality. Pkt., 5c; Oz., 20c; ¼ Lb., 60c; Lb., \$2.00.

## CELERICAC

Sow seed the same as for celery. Transplant into rows two feet apart and thin to nine inches in the row. Cultivate thoroughly. It is not necessary to earth up.

**LARGE SMOOTH PRAGUE**—This is the most popular variety with American growers. Roots nearly globular, comparatively smooth, with few roots at the bottom, flavor excellent. This variety excels all others in appearance, size and quality. Pkt., 5c; Oz., 20c; ¼ Lb., 60c; Lb., \$2.50.

## CHICORY

The roots, dried and ground, are used as a substitute for coffee, also are very palatable cooked. Sow early in the spring in rows eighteen inches apart and thin to six inches between plants. The plants are perennial and spread from the roots.

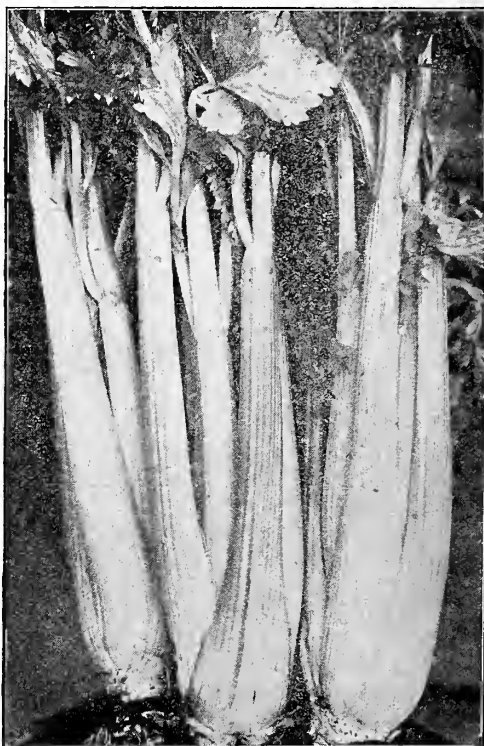
**LARGE ROOTED OR COFFEE**—The largest rooted variety. Pkt., 10c; Oz., 15c; ¼ Lb., 50c.

**WITLOOF OR FRENCH ENDIVE**—This variety makes a delicious winter salad much like Cos lettuce. The long parsnip-like roots are lifted in the fall and forced indoors or else stored and set out in the spring to produce the deliciously tender leaves. Sow the seed in June in rows twelve to eighteen inches apart, the plants being not closer than three inches. In November lift the roots, cut back the tops to two inches, and then store in a cool place until time for forcing. Plant in a trench sixteen or eighteen inches deep and one and a half inches apart, leaving about eight inches above bottom of trench. Fill trench with light, rich soil and, if quick growth is desired, mulch with manure. In a month the heads are ready to be cut with a small portion of the root attached. If planted outside in the spring, plant in rows twenty-eight inches apart, where they will produce delicious, creamy-white leaves. Pkt., 10c; Oz., 25c; ¼ Lb., 60c.

## COLLARDS

Sow seed as for cabbage, in June, July and August for succession. When a month old transplant in rows a foot apart each way and cultivate thoroughly.

**GEORGIA**—This is the principal Southern variety used for greens; grows vigorously with light green leaves somewhat resembling cabbage, but borne only in a cluster and not heading. Pkt., 5c; Oz., 10c; ¼ Lb., 25c; Lb., 80c.



Golden Self Blanching.

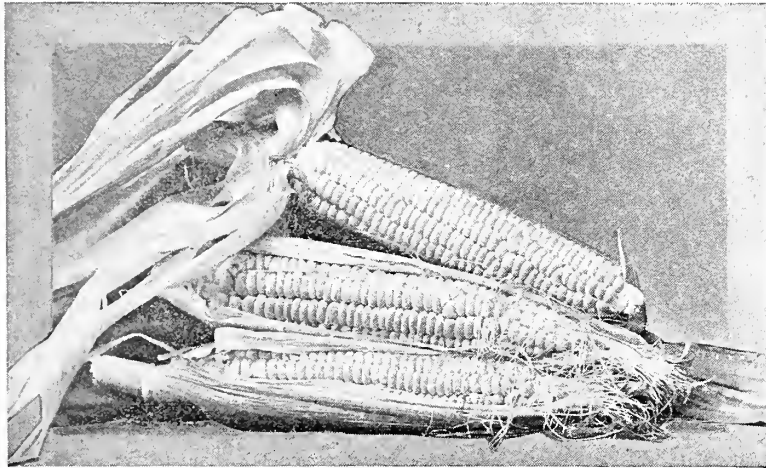


Speise Mais

**SWEET CORN**

Maiz Dulce

**P**LANT either in hills three feet apart each way, or in rows three feet apart, with one or two stalks every ten inches. Break off suckers and give careful cultivation. For succession we use Peep-O-Day, Golden Bantam, Wing's Golden Sugar, Early Evergreen and Country Gentlemen. Planted at the same time these varieties follow each other, making a nice succession.

**Wing's Golden Sugar.**

**ADAMS EXTRA EARLY**—An early selection of the Early Adams, maturing for us July 27th. The quality combined with its vigorous growth, hardness and attractive appearance make it a good early variety, especially in the South. Fodder six feet, ears seven inches, well filled with white, smooth kernels. Pkt., 10c; Pt., 15c; Qt., 25c; Pk., \$1.25; Bu., \$4.00.

**BLACK MEXICAN**—A standard midseason variety, maturing for us July 27th. Its deliciously sweet flavor more than makes up for the bluish-black color which it turns on maturing. Fodder medium tall; ears long and slender; rows straight and kernels rather flat. Pkt., 10c; Pt., 15c; Qt., 30c; Pk., \$1.50; Bu., \$5.50.

**CORY (Extra Early or Red Cob Cory)**—A standard early market sort, maturing for us July 20th. Fodder six feet; ears six inches, grain medium width with little air space. A very attractive early corn. Pkt., 10c; Pt., 15c; Qt., 30c; Pk., \$1.35; Bu., \$5.00.

**COUNTRY GENTLEMAN**—One of the sweetest and best of the late varieties; matures for us August 7th. Fodder seven feet; ears eight inches; cobs small and thickly covered with deep, pearly-white grains that are irregular in arrangement, not being arranged in rows. Very productive and a splendid market variety. Pkt., 10c; Pt., 25c; Qt., 40c; Pk., \$1.75; Bu., \$6.00.

**CROSBY'S EARLY**—A second early variety that is extensively used for early canning. Medium sized fodder; ears medium length; kernels deep, sweet and tender. Pkt., 10c; Pt., 15c; Qt., 30c; Pk., \$1.35; Bu., \$5.00.

**WING'S GOLDEN SUGAR (Originated by Wing, 1915)**—We claim for this new Sweet Corn all the good qualities of that wonderful variety, Golden Bantam, with the added advantage of an ear one and a half times as long. It has the same luscious sweetness and delicacy of flavor possessed by Golden Bantam. Up to this time Golden Bantam has been acknowledged as the sweetest and best eating variety of Sweet Corn grown. Its disadvantage was a rather small ear. Wing's Golden Sugar has an ear one-half larger, is every bit as sweet and nice in every way, matures at almost exactly the same time, has a little larger, more vigorous fodder. Customers who have purchased this seed from us have been very enthusiastic, and we look for this variety to assume large proportions within the next few years. Pkt., 10c; ½ Pt., 15c; Pt., 25c; Qt., 45c; ½ Pk., \$1.00; Pk., \$1.75; Bu., \$6.50.

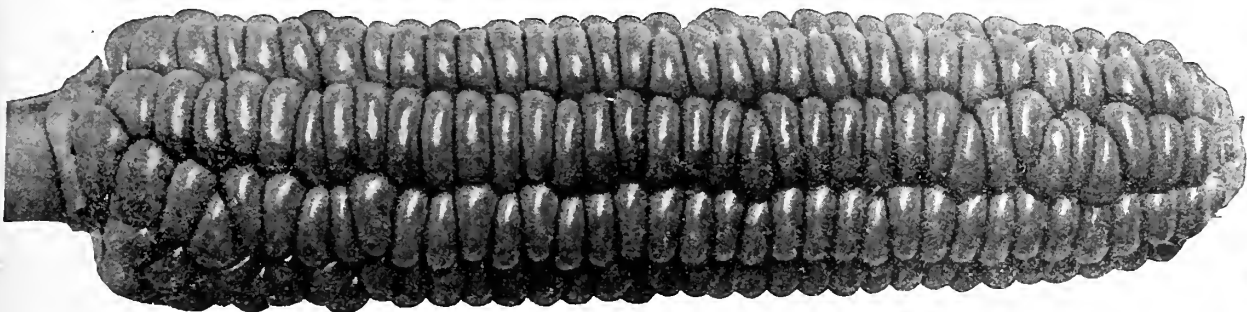
**ADAMS EARLY**—Matures August 1st. Fodder seven feet; ears eight inches; well filled, with no air space; grains broad, deep and white. A good market variety; midseason in maturity. Pkt., 10c; Pt., 15c; Qt., 25c; Pk., \$1.25; Bu., \$4.00.

**EARLY EVERGREEN**—A variety possessing the good qualities of Stowell's Evergreen and maturing fully a week earlier, about August 1st. Fodder about seven feet; ears seven inches or over; kernels deep, narrow, tender and very sweet. Stays in its prime a long time. A splendid home garden or market type. Pkt., 10c; Pt., 25c; Qt., 40c; Pk., \$1.75; Bu., \$6.00.

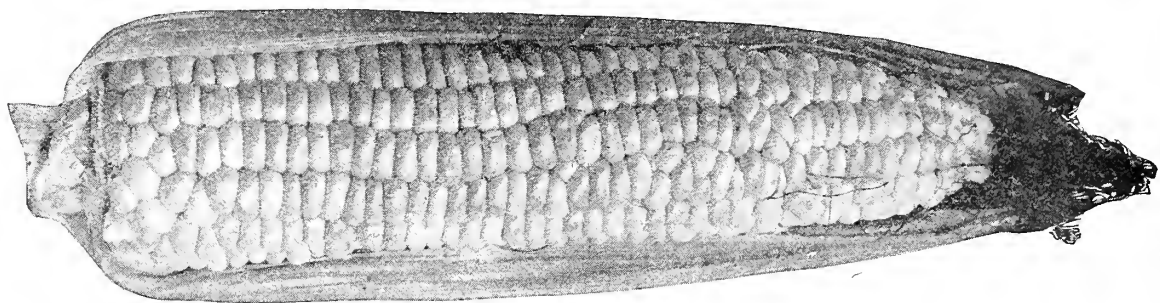
**GOLDEN BANTAM**—Matures for us July 23d. Ears six inches; fodder five feet. This variety stands in a class by itself, no other variety that we know of, excepting Wing's Golden Sugar, anywhere near equaling it in sweetness and quality. It is good enough to suit the most critical. The ears are only moderate sized, but we consider the variety productive. The grain is rather broad; the ears well filled out without air space. We recommend this variety simply to eat. It is too good to sell. Pkt., 10c; Pt., 20c; Qt., 30c; ½ Pk., 90c; Pk., \$1.65; Bu., \$6.00.

**EARLY MAMMOTH**—A very productive, late ripening, second early variety, maturing for us about August 4th. The fodder is medium height; ears long, tapering; kernels large and sweet, protected by a heavy husk. A splendid variety to plant late for late market. Pkt., 10c; Pt., 15c; Qt., 25c; Pk., \$1.25; Bu., \$6.00.

**EARLY MINNESOTA**—A splendid second early variety that comes in just after Cory, maturing about July 27th. Fodder six feet; ears eight inches, slender, with little air space; kernels broad, fairly deep, and of a fine sweet flavor. A very attractive market corn. Pkt., 10c; Pt., 15c; Qt., 25c; Pk., \$1.25; Bu., \$4.75.

**Golden Bantam.**



**Kendal's Giant.**

**KENDAL'S EARLY GIANT**—A large eared second early variety that matures about August 1st. Fodder seven feet; ears seven inches, thick, with no air space; kernels in regular rows, broad, deep, creamy-white and very sweet. An attractive looking sort to sell and better than the average to eat. Pkt., 10c; Pt., 15c; Qt., 25c; Pk., \$1.35; Bu., \$5.00.

**LATE MAMMOTH**—A very large, vigorous growing late sort, matures about August 17th. Fodder eight feet; ears often ten inches long, uniform and tapering; grain medium sized and sweet. The very largest of the sugar corns and very productive. Pkt., 10c; Pt., 15c; Qt., 25c; Pk., \$1.25; Bu., \$4.50.

**MAMMOTH WHITE CORY**—The largest and most productive of our extra early sorts. Fodder four feet; ears six inches, straight rowed with little air space; kernels very wide and of good quality. A splendid early market corn, maturing about July 17th. Pkt., 10c; Pt., 15c; Qt., 25c; Pk., \$1.35; Bu., \$5.00.

**PEEP-O-DAY**—A favorite extra early variety, maturing about July 20th. Short fodder, bearing often two ears to one stalk; ears six inches; kernels plump and white in even rows. A very fine early market corn, tender, and good to eat. Pkt., 10c; Pt., 15c; Qt., 25c; Pk., \$1.35; Bu., \$5.00.

**PERRY'S HYBRID**—A popular Eastern variety. Matures about August 1st. Fodder seven feet; ears eight inches, rows straight; grains medium large and sweeter than average sorts. Pkt., 10c; Pt., 15c; Qt., 25c; Pk., \$1.35; Bu., \$5.00.

**STOWELL'S EVERGREEN**—The standard main crop variety for either home use or the canning factory. Matures about August 7th. Fodder seven feet; ears eight inches; kernels medium sized, deep, tender, but not so sweet as some other varieties. Very productive and remains in its prime a long time. Pkt., 10c; Pt., 20c; Qt., 30c; Pk., \$1.75; Bu., \$6.00.

**WHITE EVERGREEN**—A pure white strain of Stowell's Evergreen that is especially valuable for the canning industry. It matures with Stowell's and in other characteristics very closely resembles the parent strain. Pkt., 10c; Pt., 20c; Qt., 30c; Pk., \$1.75; Bu., \$6.00.

## POP CORN

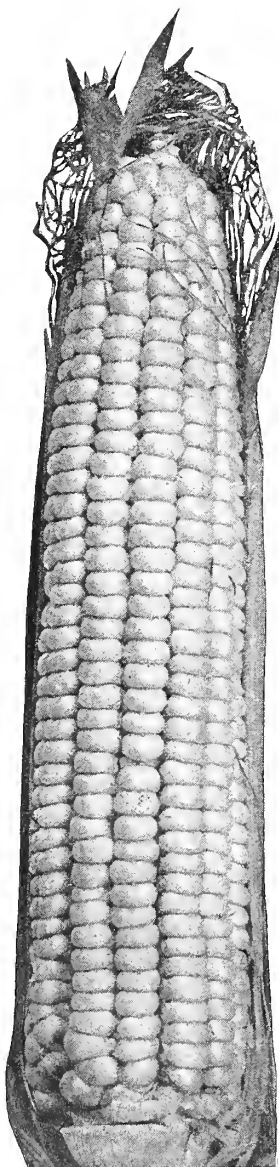
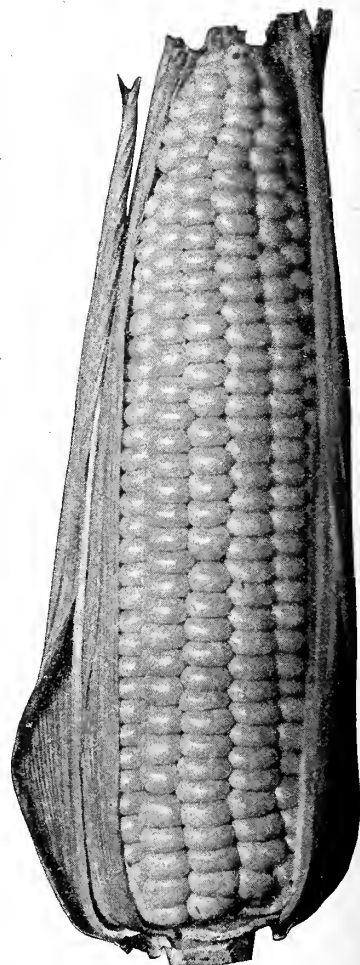
**QUEEN'S GOLDEN**—A smooth yellow variety that is very prolific and of excellent quality. The grains pop perfectly white and very large. Ears six inches, well filled; kernels smooth, and a rich golden color; cob white. Usually bears two ears to a stalk. Pkt., 10c; Lb., 25c; 3 Lbs., 60c. Express not paid, 10 Lbs., \$1.00; 25 Lbs., \$2.25.

**WHITE RICE**—An old standard variety that matures a little earlier than Queen's Golden. The ears are shorter; kernels deep, sharp and of a pale yellow color. Very prolific and of excellent quality when popped. Pkt., 10c; Lb., 25c. Express not paid, 10 Lbs., \$1.00; 25 Lbs., \$2.25.

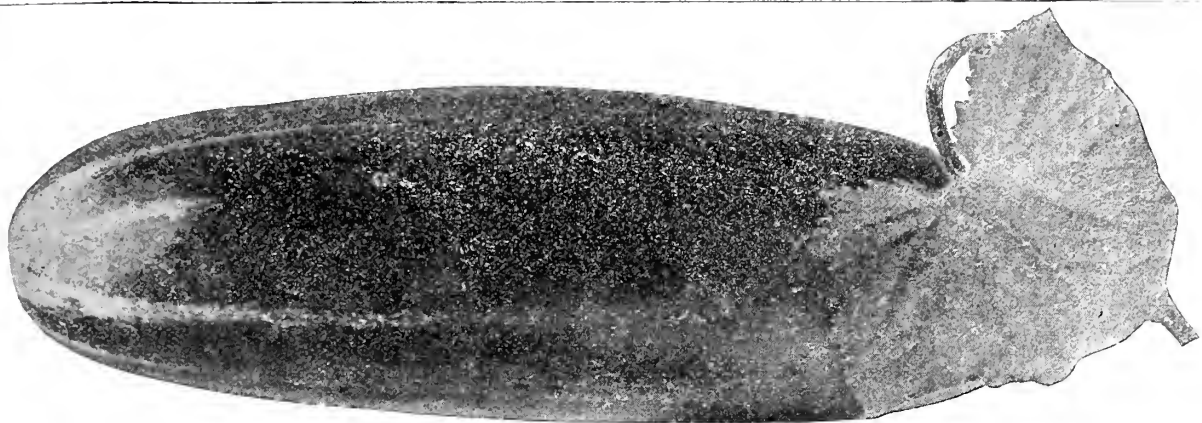
## CORN SALAD or FETTICUS

A hardy vegetable that makes a very refreshing and delicious winter salad. Sow thinly in rows from August to October, and before cold weather sets in protect with a light mulch of straw or coarse litter. The leaves will be ready to use in the late fall and early winter. One ounce will plant thirty feet of drill. The richer the ground the better success will be had.

**LARGE SEEDED**—The best known variety. Pkt., 5c; Oz., 10c; ¼ Lb., 25c; Lb., 75c.

**Early Evergreen.****Peep-O-Day.**





Fordhook Famous.

## Gurken CUCUMBER Cohombro

**P**LANT when the ground is warm, in hills three feet apart for the smaller sorts and four feet for the larger varieties. A fertile soil is best and it should be well worked. To kill the beetles sprinkle on the ground, as soon as the plants appear, ashes or tobacco dust mixed with turpentine, taking care that the vines are not killed by a too generous application.

**ARLINGTON WHITE SPINE**—A very attractive and popular sort in the South. Medium sized, early, a heavy yielder and cuts well. Pkt., 5c; Oz., 10c;  $\frac{1}{4}$  Lb., 30c; Lb., \$1.00.

**COOL AND CRISP**—Unusually attractive, white spine variety, very early, long, slender, rather pointed, and cuts above average. Good either for pickling or slicing. Pkt., 5c; Oz., 10c;  $\frac{1}{4}$  Lb., 25c; Lb., 90c.

**CUMBERLAND**—A hardy variety of white spine type, producing very freely, the color gray-green. It is thickly covered with small, fine spines, except on the extreme stem end, and the surface is roughened in the manner desired for pickling. Pkt., 5c; Oz., 10c;  $\frac{1}{4}$  Lb., 25c; Lb., 85c.

**DAVIS' PERFECT**—A splendid, new variety, adapted either to greenhouse or outdoor use. When grown outdoors, frequently good enough to sell as hothouse fruit. Popular with market gardeners on account of its splendid quality and because it frequently sells above market price. It is long, slender, smooth, with excellent color, and cuts above average. Pkt., 5c; Oz., 15c;  $\frac{1}{4}$  Lb., 30c; Lb., \$1.10.

**EARLY CLUSTER**—Small vines that are very productive through a long period. The short, light green fruits borne in clusters of two or three, make the very finest sort of early pickles and are often used for slicing as well. Pkt., 5c; Oz., 10c;  $\frac{1}{4}$  Lb., 30c; Lb., \$1.00.

**EARLY RUSSIAN**—One of the earliest varieties; fruit about three inches long and very satisfactory for pickles, if kept gathered when young. Pkt., 5c; Oz., 10c;  $\frac{1}{4}$  Lb., 30c; Lb., \$1.00.

**EARLY SHORT GREEN**—An excellent variety for pickles, very early, producing well; is also adapted to slicing. Pkt., 5c; Oz., 10c;  $\frac{1}{4}$  Lb., 30c; Lb., \$1.00.

**EVERBEARING**—An early and very prolific variety, suitable for pickles. Fruit small, of good quality, and if kept gathered, very prolific. Pkt., 5c; Oz., 15c;  $\frac{1}{4}$  Lb., 40c; Lb., \$1.25.

**EXTRA EARLY WHITE SPINE**—An unusually attractive and very popular variety. Excellent for forcing and a heavy yielder, commanding the highest market price. It is productive, of good size, very smooth, and cuts unusually well. Pkt., 5c; Oz., 15c;  $\frac{1}{4}$  Lb., 35c; Lb., \$1.25.

**FORDHOOK FAMOUS**—An unusually attractive, early sort, very long, slender, dark green and somewhat pointed; the flesh is very thick and crisp; seeds few, and the flavor delicious. The vines are uniformly productive throughout the season. Pkt., 10c; Oz., 15c;  $\frac{1}{4}$  Lb., 35c; Lb., \$1.10.

**IMPROVED LONG GREEN**—A standard sort, adapted especially to long pickles, for which purpose it is excellent. The bulk of the crop of this variety matures rather late. Pkt., 5c; Oz., 15c;  $\frac{1}{4}$  Lb., 35c; Lb., \$1.10.

**JAPANESE CLIMBING**—Vines are unusually strong and throw out tendrils, making it suitable for training on trellises. Fruit is long and well formed, suitable either for pickles or slicing. Pkt., 5c; Oz., 15c;  $\frac{1}{4}$  Lb., 40c; Lb., \$1.25.

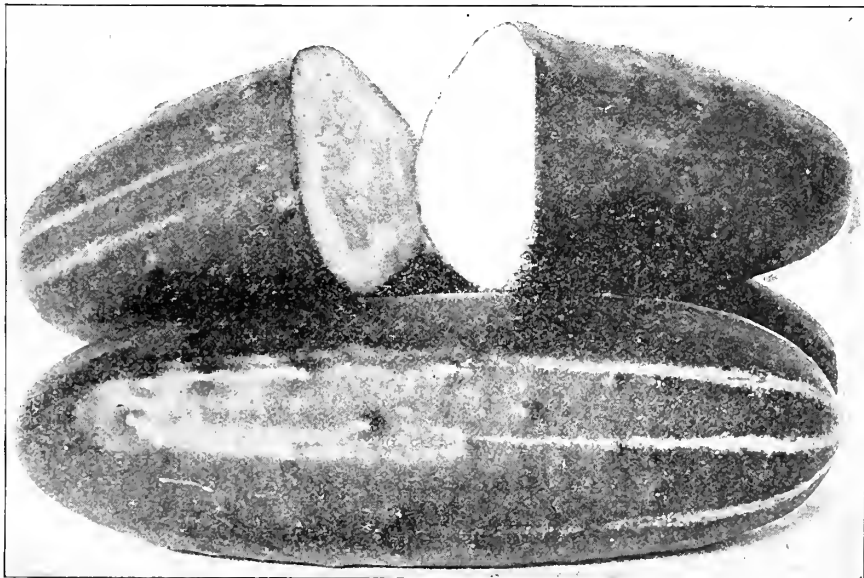
**KLONDIKE**—A good strain of white spine, very popular in the South for shipping North; very dark green, smooth, retains its color well. Pkt., 5c; Oz., 10c;  $\frac{1}{4}$  Lb., 25c; Lb., 90c.

**LIVINGSTON'S EVERGREEN PICKLING**—A hardy, prolific variety, excellently adapted to pickling and also satisfactory for slicing; a good producer. Pkt., 5c; Oz., 15c;  $\frac{1}{4}$  Lb., 35c; Lb., \$1.25.

**NICHOL'S MEDIUM GREEN**—A standard, old variety suitable either for pickles or slicing. Good quality and a good yielder. Pkt., 5c; Oz., 10c;  $\frac{1}{4}$  Lb., 30c; Lb., \$1.00.

**WESTERFIELD CHICAGO PICKLE**—A decidedly popular pickling variety that frequently commands more than market price; it is universally used by the great pickle manufacturers. Pkt., 5c; Oz., 10c;  $\frac{1}{4}$  Lb., 30c; Lb., \$1.00.

**WEST INDIA GHERKIN**—A small oval variety, suitable for pickles only. It produces heavily; surface is decidedly rough; length about two to three inches. Pkt., 5c; Oz., 15c;  $\frac{1}{4}$  Lb., 45c; Lb., \$1.50.



Cool and Crisp.

## CRESS

**S**OW as early in spring as the ground can be worked, in good soil. Make shallow drills sixteen inches apart; cover seed one-half inch, pressing the soil down firmly. Thin to four or five inches apart in the row. For succession plant every two weeks. Use as salad before the flowers appear.

Watercress may either be started in pans or boxes of very moist earth and then transplanted to the bank of streams or pond where you wish them to grow, or the seed may be lightly covered with soil along the borders of streams. It can be grown in tubs of good soil in a shady place, if plenty of water is given.

**BROAD-LEAVED WINTER OR UPLAND**—A hardy perennial which stays green nearly the entire year; will do for use very early in the spring; eaten like lettuce or boiled like spinach. Pkt., 5c; Oz., 15c; ¼ Lb., 50c.

**CURLED OR PEPPER GRASS**—An excellent flavored variety which may be cut two or three times. Pkt., 5c; Oz., 10c; ¼ Lb., 25c.

**TRUE WATERCRESS**—The well-known perennial, aquatic plant, very prolific and easily grown, with a mild pungent flavor, relished by nearly every one. Pkt., 10c; Oz., 35c; ¼ Lb., \$1.25.

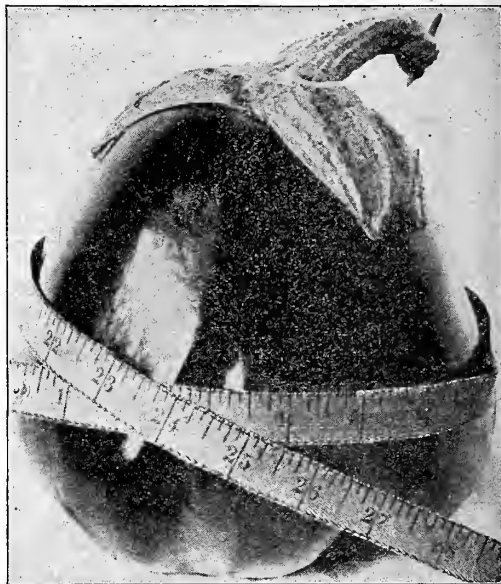
## Eierpflanze EGG PLANT Berengena

**S**OW in hotbeds early in spring, transplant when weather is warm and perfectly settled; set plants about three feet by two feet. When cutting the fruit, be careful not to destroy the roots of the plants. One ounce of seed produces 1,000 plants.

**LONG PURPLE**—A very early maturing, productive variety. Rich purple color with long fruit and excellent quality. Pkt., 10c; ½ Oz., 20c; Oz., 35c; ¼ Lb., \$1.00; Lb., \$3.50.

**NEW YORK IMPROVED LARGE PURPLE**—A standard variety with large fruit, oval shaped and smooth, deep purple, early, productive and of good quality. Pkt., 10c; ½ Oz., 15c; Oz., 25c; ¼ Lb., 90c; Lb., \$3.25.

**BLACK BEAUTY**—Entirely spineless variety, ten days earlier than New York; attractive in form, broad and thick, purple color, a desirable variety for northern gardens. Pkt., 10c; ½ Oz., 20c; Oz., 35c; ¼ Lb., \$1.00; Lb., \$3.50.



New York Improved Purple.

## Lowenzahn DANDELION Diente de Leon

Sow early in spring or up to June in good, warm soil, one-half inch deep, eighteen inches apart, and cultivate well. They are ready to cut the following spring. They may be blanched by placing a couple of boards over the rows V-shaped, excluding the light and rendering them far superior to the wild varieties.

**CULTIVATED OR FRENCH COMMON**—A decided improvement on the wild dandelion, being almost double its size, very early and vigorous. Pkt., 10c; ½ Oz., 25c; Oz., 40c; ¼ Lb., \$1.25; Lb., \$4.50.

## GOURDS

Culture is the same as for Squash. Rapid growing climbers, making good trellis covers, and the fruit being interesting and ornamental.

**DIPPER**—Used for dippers, grows about twelve inches long, will last for years, holds one to four pints. Pkt., 5c; Oz., 20c.

**JAPANESE NEST EGG**—The size of a hen's egg; used for darters. Pkt., 5c; ½ Oz., 15c; Oz., 25c.

**SUGAR TROUGH**—Has hard, thick shell, light, durable

and strong; holds about six or eight gallons. Pkt., 5c; Oz., 15c.

**MIXED**—Pkt., 5c.

**ORNAMENTAL GOURDS**—A choice mixture of the ornamental sorts, many of them being very curious and interesting both in form and markings. Pkt., 5c.



Green Curled Winter.

## Endivien ENDIVE Endivia

**O**NE of the best fall and winter salads. It is easily blanched, crisp, tender and of fine flavor. For early use sow the middle of April, for later use sow from June to August in rows fifteen to twenty-four inches apart, thinning to eight inches apart. When desired for use tie the leaves up so that they will blanch, or cover with boards in the same manner as described for dandelions.

**BROAD LEAVED BATAVIAN**—The broadest leaved variety, the leaves being much the same size and shape as a large dandelion leaf. The inner leaves form a sort of head that blanches out very nicely. Pkt., 5c; Oz., 10c; ¼ Lb., 30c; Lb., \$1.00.

**EVER WHITE CURLED**—Light green, curled leaves that blanch out very easily. Very decorative and of fine quality. Pkt., 5c; Oz., 10c; ¼ Lb., 35c; Lb., \$1.10.

**GREEN CURLED WINTER**—Very similar to White Curled except that the leaves are a dark green and are more finely divided and curled. The center blanches to a creamy-white. Pkt., 5c; Oz., 15c; ¼ Lb., 35c; Lb., \$1.25.

**LARGE CURLED PANCALIER**—The largest of the curled sorts, but not so curly as Green Curled. It is earlier and more erect, the leaves growing so thickly in the center as to almost blanch themselves. Pkt., 5c; Oz., 15c; ¼ Lb., 35c; Lb., \$1.25.





Kohl Rabi.

**LARGE CARENTAN**—A standard market variety of large size, sometimes growing three inches in diameter. Flavor mild, and very hardy. Pkt., 5c; Oz., 15c;  $\frac{1}{4}$  Lb., 50c; Lb., \$1.50.

## KALE or BORE COLE

**THESE** plants are extensively used, especially in the South, for garnishing and greens. They are of the cabbage family, do not form heads, but furnish an abundance of attractive green leaves. Seed may be sown from April to October, being handled the same as cabbage, except that some of the varieties will stand a good deal of frost. The young shoots which come up from the old stalks in the spring make excellent greens.

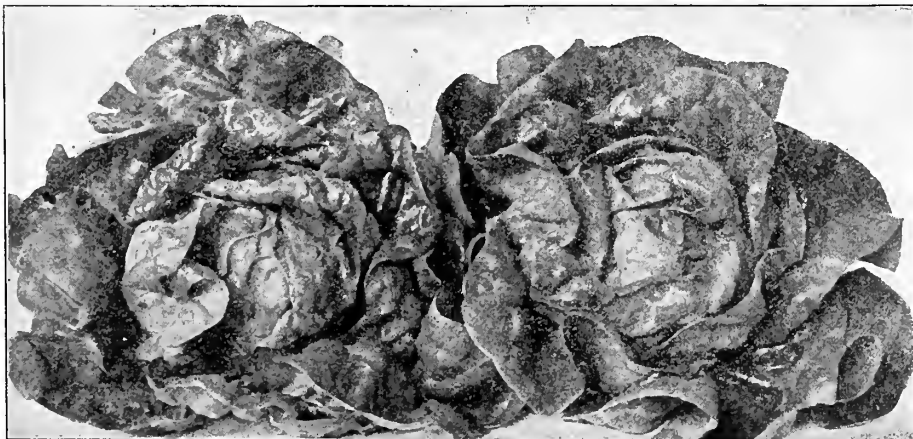
**DWARF GREEN SCOTCH CURLED**—Produces an abundance of finely curled, Parsley-like leaves that are very hardy and resistant, staying in their prime for a long time. A heavy yielder and extensively grown, especially in the South, for shipment. Pkt., 5c; Oz., 10c;  $\frac{1}{4}$  Lb., 25c; Lb., 75c.

**TALL GREEN SCOTCH CURLED**—Very similar to the Dwarf Green excepting that leaves are a brighter green, a little coarser, and are borne at the top of a stalk two feet from the ground. It is of good quality and so hardy that a light frost improves rather than injures it. Pkt., 5c; Oz., 15c;  $\frac{1}{4}$  Lb., 30c; Lb., \$1.00.

**SIBERIAN**—A very vigorous, hardy variety that may be sown in September for spring greens. It is of dwarf habit, with large, bluish-green leaves; not so finely curled as the Scotch Curled varieties. Pkt., 5c; Oz., 10c;  $\frac{1}{4}$  Lb., 25c; Lb., 75c.

## Lattich LETTUCE Lechuga

**LETTUCE** likes a moderately moist, fertile soil. Seed may be sown as early as the ground is fit, sowing every two weeks for succession. The heading varieties should be thinned to eight inches apart, but if heads are not wanted leave the plants two inches apart to grow in a mass. For winter use, sow under glass from November to February. Keep in a moderate temperature, giving as much light and air as possible. From time of seeding to maturity is forty or fifty days. One ounce of seed will produce 3,000 plants.



May King Head Lettuce.

## Knollkohl KOHL RABI Col Rabano

**IN** growth this vegetable is half way between the turnip and cabbage. Cooked like turnips they are very delicious, the flavor being somewhat milder and the quality finer. Sow early in the spring, in light, rich soil; the rows should be eighteen inches apart; thin to six inches apart in the row. Cultivate like cabbage. For succession, sow every two weeks until hot weather, when they fail to do well. For fall use seedings can be made in July.

**EARLY WHITE VIENNA**—A short leaved, early variety that is of much finer quality than the Large White. The roots are best used when they are only two or two and a half inches in diameter. Pkt., 5c; Oz., 20c;  $\frac{1}{4}$  Lb., 50c; Lb., \$1.50.

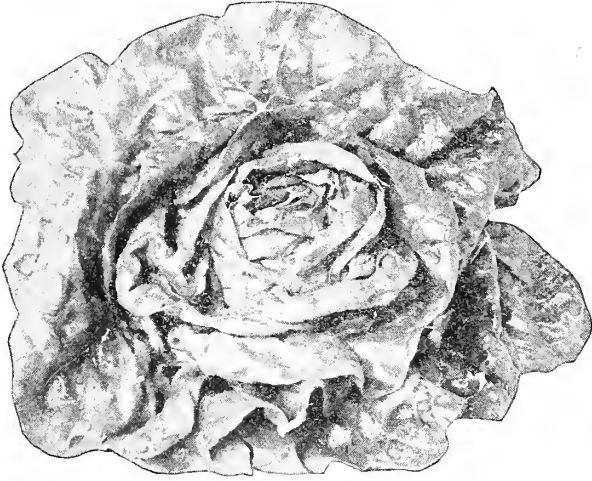
**EARLY PURPLE VIENNA**—Very similar to White Vienna except that the root and leaves are purple and somewhat larger. It is also a little later. Pkt., 5c; Oz., 20c;  $\frac{1}{4}$  Lb., 60c; Lb., \$2.25.

## Porree Oder Lauch LEEK Puerro

**THIS** plant belongs to the onion family and is used in soups or boiled like asparagus. Sow on good onion soil very early in the spring in drills six inches apart and one inch deep, thinning to six inches in the row. The earth should be drawn up around them when cultivating. They may be stored in a cool cellar in winter.

**BROAD SCOTCH or LONDON FLAG**—A hardy variety with large, broad leaves and of excellent quality. Pkt., 5c; Oz., 15c;  $\frac{1}{4}$  Lb., 50c; Lb., \$1.50.

## HEADING VARIETIES



**Black Seeded Tennis Ball.**

**T**HE popular belief that Head Lettuce is difficult to grow is entirely wrong. All that is necessary is to select proper varieties, thin the plants to eight inches in the row, and give careful cultivation.

**BLACK SEEDED TENNIS BALL**—A variety very similar to the May King, and by our tests practically as valuable. It is a few days earlier, and with us lasted a few days longer than May King, but the latter had a trifle larger proportion of fine heads. The leaf edges are plain. The heads are quite solid and bleach to a beautiful creamy-white. This variety is also well recommended for forcing. Pkt., 5c; Oz., 10c;  $\frac{1}{4}$  Lb., 30c; Lb., 90c.

**MAY KING**—This variety is surely good enough to satisfy the most exacting. It is equally good for forcing or for growing outdoors. Practically every plant forms a beautiful compact, good sized head which bleaches to a creamy-white, and is very finely flavored. It matures early and is in its prime about two weeks. Pkt., 5c; Oz., 15c;  $\frac{1}{4}$  Lb., 45c; Lb., \$1.50.

## LOOSE HEAD VARIETIES

**BIG BOSTON**—This variety heads up in cool weather better than any other sort and stands hot weather equally well, making it especially valuable for market gardeners. It is quite extensively grown in the South for shipment North in winter. The leaves are large and nearly smooth, the edges lightly tinged with brown. Large, loose heads are very crisp, tender, and of the finest flavor. Our stock is from the best selected strain. Pkt., 5c; Oz., 15c;  $\frac{1}{4}$  Lb., 35c; Lb., \$1.25.

**CALIFORNIA CREAM BUTTER**—Like the Big Boston this variety ripens up very well in cool weather and is much used for shipping North in winter. The leaves are large, smooth, very dark green; slow about coming to prime, but ripens very uniformly and stays in its prime a long time. The heads are loose, but blanch to a creamy-white, and the quality is unexcelled. Pkt., 5c; Oz., 15c;  $\frac{1}{4}$  Lb., 35c; Lb., \$1.25.

**DEACON**—A splendid summer variety of the "butter" type. Plants are compact with few outside leaves; leaves are smooth and very light green; the large loose heads blanch inside to a golden-yellow color. It does not stand heat so well or remain in its prime so

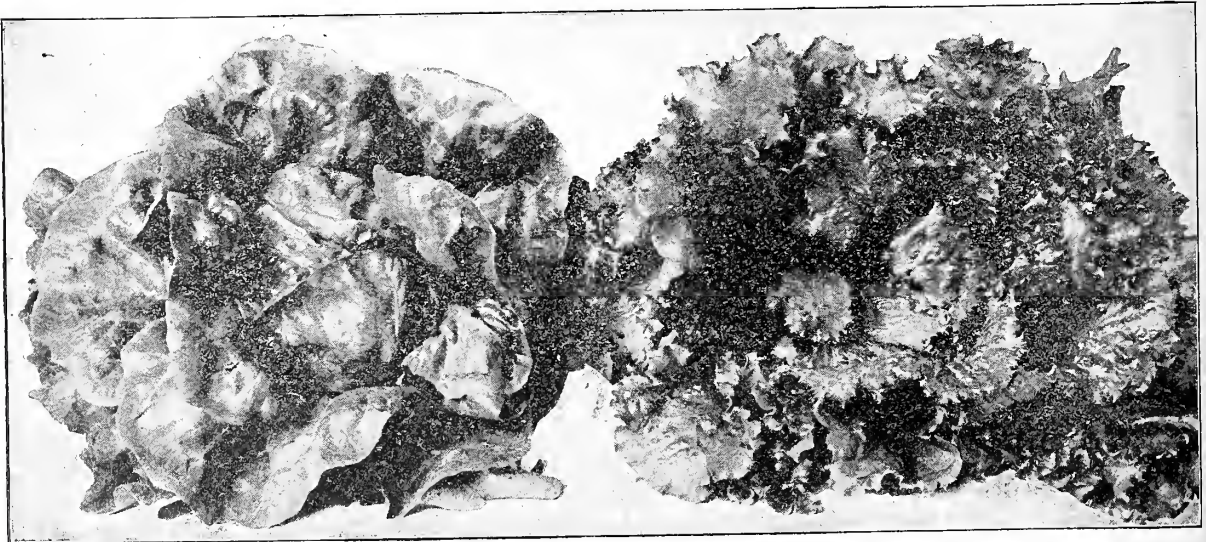
long as some of the other varieties. Pkt., 5c; Oz., 15c;  $\frac{1}{4}$  Lb., 35c; Lb., \$1.25.

**MAMMOTH BLACK SEEDED BUTTER**—Liked by market gardeners because it can be planted very early and stands cold weather well. It ripens early and uniformly. Leaves smooth, light, yellowish green; heads are large, loose, beautifully blanching and of fine flavor. Pkt., 5c; Oz., 15c;  $\frac{1}{4}$  Lb., 35c; Lb., \$1.25.

**MAXIMUM or IMMENSITY**—A variety similar to Hubbard Market in size and quality, but more hardy and drouth resistant. The leaves are dark green, smooth; heads are large, compact, greenish-white inside and very slow to run to seed. Pkt., 5c; Oz., 10c;  $\frac{1}{4}$  Lb., 30c; Lb., \$1.00.

**HUBBARD MARKET**—A late variety but one that stays in its prime for a long time. Leaves are thick, bright green, blistered and with wavy edges; heads are large, solid, and of very fine flavor. Very uniform in maturing. Pkt., 5c; Oz., 10c;  $\frac{1}{4}$  Lb., 30c; Lb., \$1.00.

**WHITE SEEDED TENNIS BALL or BOSTON MARKET**—A splendid forcing variety, being strictly cabbage heading, very early and with little waste. Very good buttery flavor and quality excellent. Pkt., 5c; Oz., 10c;  $\frac{1}{4}$  Lb., 30c; Lb., 90c.



**Deacon.**

**Prizehead.**



## LOOSE LEAF VARIETIES

### DENVER MARKET —

One of the most attractive varieties in the loose-leaf class. It is adapted for summer use outdoors, but is also splendid for forcing. As it remains in its prime for a long time it is a valuable market lettuce. The leaves are very frilled with curled edges and are of a beautiful light green color; the inner leaves being bleached and very sweet. Pkt., 5c; Oz., 10c; ¼ Lb., 30c; Lb., \$1.00.

### GRAND RAPIDS — This

variety is the most attractive of all when seen growing outside, and as a forcing variety it probably stands at the head of the list in popularity. The leaves are borne in great bunches and are rather smooth with beautifully frilled edges of a light green color. The leaves are borne up well off the ground, preventing waste, and the variety stays in its prime longer than any other in its class. Our strain is constantly being improved by selection, and is of the best possible quality. Pkt., 5c; Oz., 15c; ¼ Lb., 45c; Lb., \$1.50.

**HANSON IMPROVED**—A loose heading variety that is splendid for outdoor use. The leaves are large, of a yellowish-green color, blistered and with crinkled edges; the heads are large, loose and beautifully blanched inside. The quality is splendid, the leaves



### Hanson Improved.

being decidedly crisp, sweet and tender. Pkt., 5c; Oz., 15c; ¼ Lb., 45c; Lb., \$1.25.

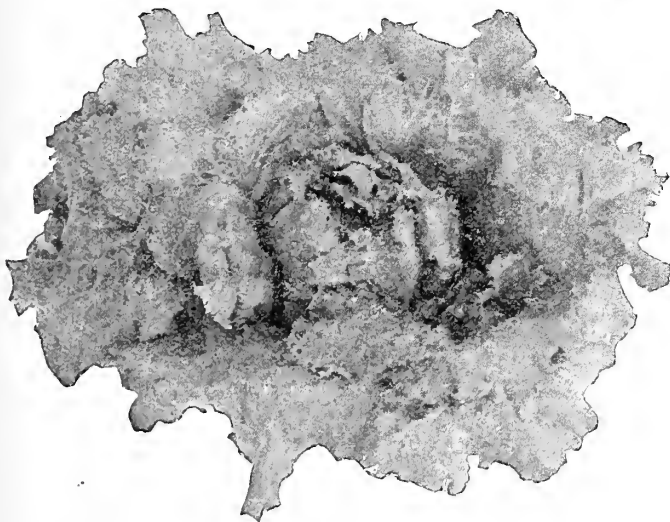
**ICEBERG**—An early maturing, outdoor variety somewhat similar to Grand Rapids, excepting that the large white main ribs incurve, forming a loose head that blanches out very nicely. The leaves are pale green with brown tinged edges, and are very much crinkled. The inner leaves are very white, tender and sweet. It stays in its prime for a long time. Pkt., 5c; Oz., 15c; ¼ Lb., 45c; Lb., \$1.25.

**NEW YORK or WONDERFUL**—A great favorite with market gardeners around New York and other large cities. The plants are compact and of a very dark green. The leaves are borne upright and are rather smooth, forming a large, loose head. The quality is of the finest and the plants stay in their prime about ten days. Pkt., 5c; Oz., 15c; ¼ Lb., 45c; Lb., \$1.50.

**PRIZE HEAD**—A very striking looking lettuce, the large bunching leaves being tinged a brownish-red, giving it a very handsome appearance. The leaves are very tender and sweet, being in fact too tender to stand shipping. The heart contains a large amount of blanched leaves. It is one of the earliest to reach maturity and stays in its prime about two weeks. Pkt., 5c; Oz., 15c; ¼ Lb., 45c; Lb., \$1.50.

**SIMPSON BLACK SEEDED**—One of the most popular of the loose-leaf varieties, with market as well as home gardeners. It is a good all around lettuce, doing well in both house, cold frame or outdoors. It is a bunching variety with light green, fluffy leaves that are very tender and fine flavored. Pkt., 5c; Oz., 15c; ¼ Lb., 45c; Lb., \$1.50.

**SIMPSON EARLY CURLED**—A very popular early sort that closely resembles Simpson Black Seeded excepting that the leaves are of a darker green. The leaves are borne in clusters, are crisp, tender and sweet. It is a very reliable variety for family use, as it is sure to make some leaves even under the most unfavorable conditions. Pkt., 5c; Oz., 15c; ¼ Lb., 45c; Lb., \$1.50.



Simpson Early Curled.

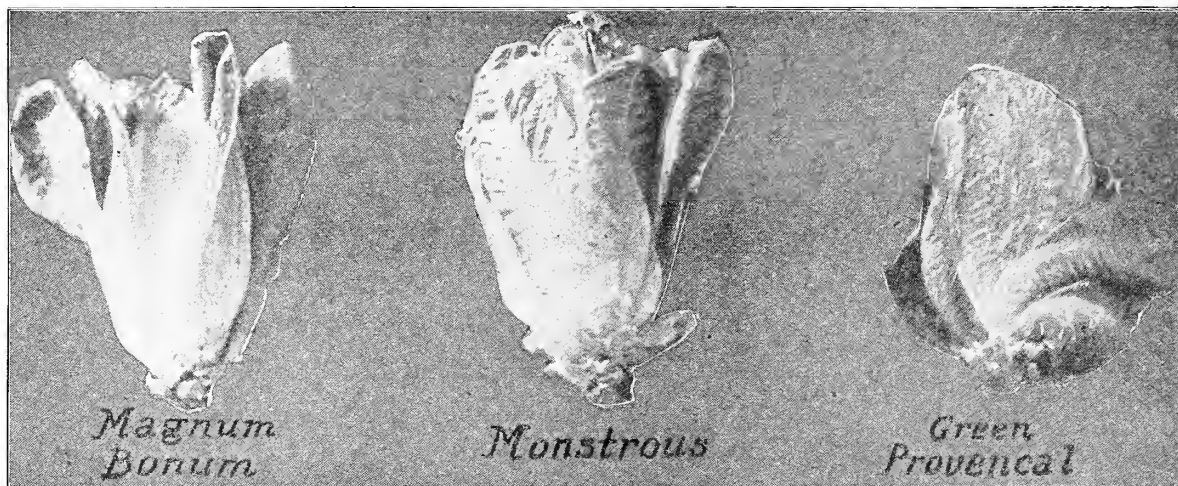
## COS LETTUCE

**T**HIS splendid type of lettuce is grown very extensively in Europe and its popularity is growing very rapidly in this country. Not to know this lettuce is to have missed a great treat as the large, sweet, tender heads come on after the other sorts are past their prime. It should not be eaten until well headed, as most varieties are bitter up to that time.

Cos Lettuce is grown the same as ordinary Head Lettuce, excepting that with Monstrous Brown, Green Provence and some of the other larger sorts a little more space is needed than with the ordinary Head Lettuce.

Planted at the same time with Cos, will come on later in the summer after the other lettuce has gone to seed, and if a succession is planted, salads from this delicious vegetable may be enjoyed all summer.

The varieties we offer are the best, being selected from about fifty different sorts secured from Vilmorin and other great European growers.



Cos Lettuce.

**EXPRESS**—The earliest and smallest variety of Cos Lettuce which we handle. The heads are elongated, strictly self closing, very white, tender and sweet. A very sure and uniform sort to grow. Pkt., 10c; Oz., 15c; ¼ Lb., 45c; Lb., \$1.25.

**GREEN PROVENÇAL**—A very large, medium early variety. The leaves are a very dark green and there is little waste as they all go to form the large, compact head. In quality it is very good, being equal to the smaller, early varieties. Pkt., 10c; Oz., 15c; ¼ Lb., 45c; Lb., \$1.25.

**MAGNUM BONUM**—One of the latest and largest. The long, slender, gray-green leaves self-close into a very large, solid head that blanches well and is of fine flavor. Pkt., 10c; Oz., 15c; ¼ Lb., 45c; Lb., \$1.50.

**MONSTROUS BROWN**—A large, striking looking variety of rather late maturity. The broad leaves are olive-green in color, tinged with brownish-red towards the tip. The heads are large, long, compact, and of good quality. Pkt., 10c; Oz., 15c; ¼ Lb., 45c; Lb., \$1.50.

**TRIANON**—This variety is a little earlier than White Paris, very white and of splendid quality. (Crop failure.)

**WHITE PARIS**—The old standard variety and very hard to beat. Early, and very sure and uniform in heading, the heads being oblong, tight, crisp, creamy-white and of a fine sweet taste. Pkt., 5c; Oz., 15c; ¼ Lb., 40c; Lb., \$1.25.

Zucker Melon

## MUSK MELON

Melon Muscatel

**C**ANTELOUPES like a warm, fertile, fairly loose soil. Plant when the ground is warm and dry and all danger of frost is over, in hills four to six feet apart each way. Give careful cultivation until the vines cover the ground. For earlier melons and to guard against the beetles, plant in little pots or frames and transplant as soon as the second or third leaves are formed. For the beetle, sprinkle with pulverized tobacco or lime and turpentine, care being taken not to injure the vines.

**ACME or BALTIMORE**—A very desirable melon. The fruits are medium sized, oval-shaped, slightly pointed at stem end, lightly ribbed and closely netted; flesh is thick, green and fine flavored. Pkt., 5c; Oz., 10c; ¼ Lb., 25c; Lb., 75c.

**BANANA**—A very odd shaped melon, being elongated and often eighteen or twenty inches long. The flesh is thick and blends from a bright green to salmon in color. When ripe it has a banana-like aroma and the flavor is delicious. Pkt., 10c; Oz., 15c; ¼ Lb., 45c; Lb., \$1.50.

**BURREL'S GEM**—A selection of Rockyford that is very similar in appearance excepting that the flesh is a deep orange or salmon color. Fruit is six by four inches, closely netted, lightly ribbed; rind thin but very tough; flesh thick, of fine color and very sweet and tender. It is a splendid shipper. Pkt., 5c; Oz., 10c; ¼ Lb., 25c; Lb., 85c.

**CHAMPION MARKET**—An early variety very similar to the Netted Gem but nearly twice as large. Very prolific, a good shipper and of splendid quality. Flesh is light green, thick and of the true "Rockyford" flavor. Pkt., 10c; Oz., 15c; ¼ Lb., 40c; Lb., \$1.25.

**EXTRA EARLY GREEN CITRON**—A very early variety of the nutmeg type. Medium sized, nearly round, skin green, turning yellow on maturity. Flesh light green and of good flavor. Pkt., 5c; Oz., 10c; ¼ Lb., 30c; Lb., \$1.00.

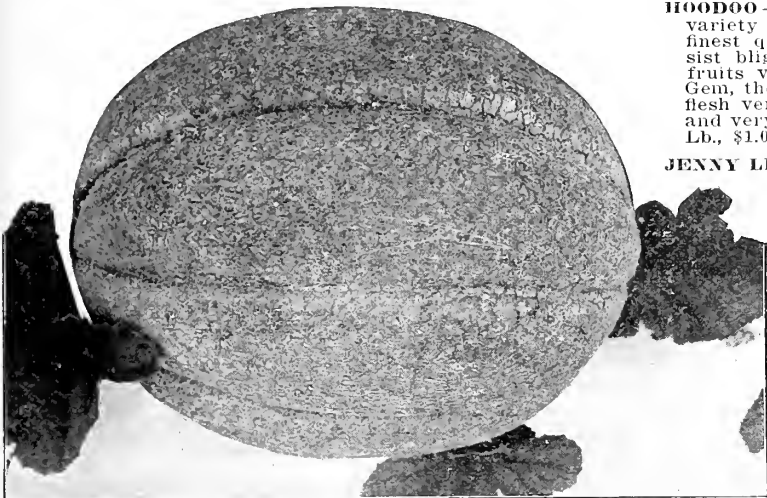
**EMERALD GEM**—A very early variety of the same size as Netted Gem but with light orange flesh. Not solid enough for distant shipping, but fine for home use or close markets. Nearly round in shape, flesh very thick and sweet flavored. Pkt., 5c; Oz., 15c; ¼ Lb., 35c; Lb., \$1.25.

**EXTRA EARLY HACKENSACK**—Ten days earlier than the old, well known Hackensack variety. Melons of good size, nearly round, flesh thick and of a light green color; fine flavored. Pkt., 5c; Oz., 10c; ¼ Lb., 30c; Lb., \$1.00.

**HACKENSACK or TURK'S CAP**—Very large, green fleshed melons, nearly round or flattened, ribs large, skin heavily netted. Flesh green, thick, rather coarse, but of fine flavor. Very hardy and productive. Pkt., 5c; Oz., 10c; ¼ Lb., 30c; Lb., \$1.00.

**HONEY DEW**—A remarkable variety which appeared in 1915 and has created a sensation, ever since. The product of slightly over two acres in 1915 netted \$3,600.00 on the Chicago and New York markets. The melons this year have sold at wholesale for from 35c to \$1.50. The rind is dull white when ripe, smooth, practically without netting; size six to seven inches in diameter, eight inches long; flesh a rich green and very sweet. A wonderful shipper that shows practically no loss. Splendid for market growers. Pkt., 5c; ½ Oz., 15c; Oz., 25c; ¼ Lb., 90c.





Tip Top.

**HOODOO**—A very hardy, vigorous, yellow fleshed variety that is ideal as a shipper and of the very finest quality. The vines are very hardy and resist blight and rust better than other sorts. The fruits vary in size, but average that of the Netted Gem, the netting is dense, the rinds thin but tough; flesh very thick, a rich salmon color, of fine quality and very fine flavored. Pkt., 5c; Oz., 10c; ¼ Lb., 30c; Lb., \$1.00.

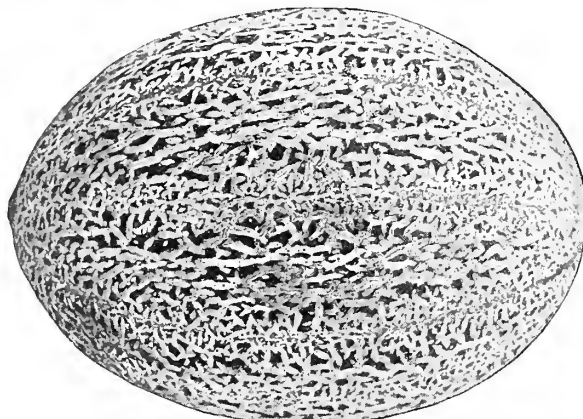
**JENNY LIND**—An old favorite, early maturing melon. The vines are small but very productive; the fruits are nearly round, small and very uniform; the flesh is green, fine grained and of excellent flavor. Pkt., 5c; Oz., 10c; ¼ Lb., 30c; Lb., \$1.00.

**LONG ISLAND BEAUTY**—A similar variety to Hackensack, but of superior quality, ripening at the same time. Melons are of large size, heavily ribbed and netted, and of very handsome appearance. The flesh is thick, of a clear green color, and of superior quality. Pkt., 5c; Oz., 10c; ¼ Lb., 30c; Lb., 85c.

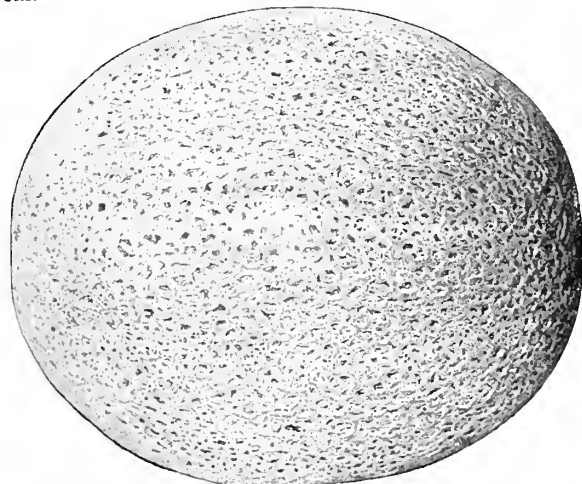
**MONTREAL NUTMEG**—This variety is largely grown around Montreal and commands the highest price in Eastern markets. The fruits are round, quite large, heavily ribbed and netted. The light green flesh is very thick and of delicious flavor. Pkt., 10c; Oz., 15c; ¼ Lb., 40c; Lb., \$1.25.

**OSAGE or MILLER'S CREAM**—A medium large variety that will do well on rather heavy soil. Oval shaped, dark green skin that is ribbed and netted. Flesh orange colored, very thick, firm, and of a rich flavor. Pkt., 5c; Oz., 15c; ¼ Lb., 40c; Lb., \$1.25.

**TIP TOP**—A yellow fleshed variety of large size and splendid quality. Nearly round, deeply ribbed, moderately netted; the flesh is bright salmon, thick, and of good flavor. Very productive and a splendid market sort. Pkt., 5c; Oz., 15c; ¼ Lb., 45c; Lb., \$1.50.



Burrell's Gem.



Gold Lined Rockyford.

## MUSHROOM SPAWN

Any amateur can successfully grow Mushrooms in a dark room or cellar where the temperature can be maintained at fifty to sixty degrees. You can gather the first crop of Mushrooms, provided your temperature is right, in six or eight weeks. One brick of spawn is enough for a bed 3x3 feet. Directions sent with each order.

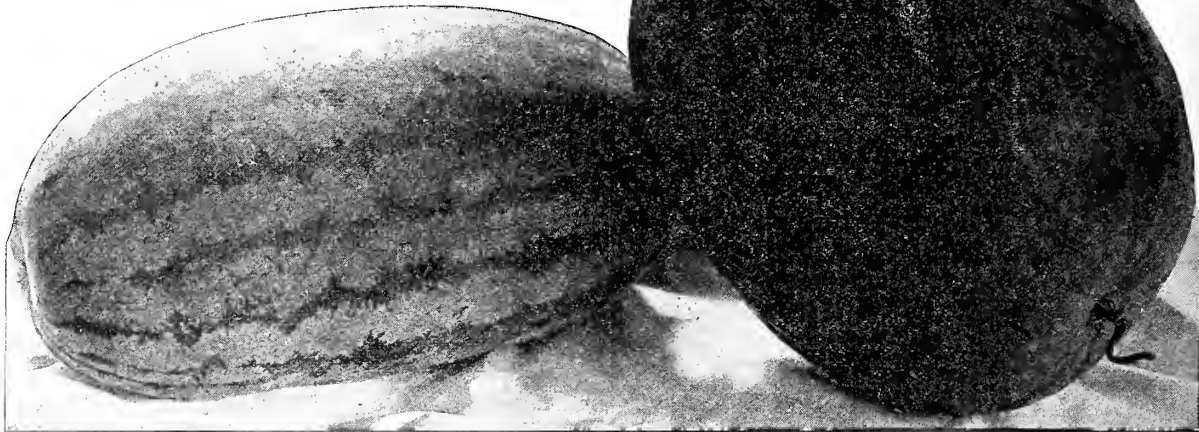
American Spawn—In bricks..... Per Brick..... 10 Bricks..... 100 Bricks.  
20c 20c \$1.80 \$16.00

**PAUL ROSE or PETOSKEY**—This melon resembles Rockyford in outer appearance except that it is larger. It is the result of a cross between Osage and Rockyford, combining the good qualities of each. The melons are ribbed, heavily netted; flesh of a rich, deep orange color that ripens well out to the skin, with small seed cavity, very firm and highly flavored. It is a splendid shipping melon and commands a high price on market. Pkt., 5c; Oz., 10c; ¼ Lb., 30c; Lb., \$1.00.

**ROCKYFORD or NETTED GEM**—This delicious variety is the one that has made Colorado famous for its melons and has for a long time been the standard of excellence, being surpassed only by the newer Gold Lined Rockyford. The vines are very vigorous and productive. The fruits are medium and uniform in size, oval shaped, slightly ribbed and very densely netted. The flesh is of a rich, green color, fine grained, thick and very superior in flavor. As with the Gold Lined Rockyford we offer two grades of seed, both grown by an expert in Rockyford, Colorado. One is from especially selected melons and the other from fields grown for seed production. Price: **Selected from Best Melons**, Pkt., 10c; Oz., 20c; ¼ Lb., 50c; Lb., \$1.75. **Regular Stock**, Pkt., 5c; Oz., 10c; ¼ Lb., 35c; Lb., \$1.00.

**GOLD LINED ROCKYFORD**—This variety represents the very acme of perfection, being the most highly developed strain of the famous Rockyford or Netted Gem. The shape is slightly oval, heavily netted over the entire surface, and the flesh is very thick, being just as thick at the blossom end as elsewhere; flesh is a rich green in color lined with golden-yellow; the texture is very fine and the flavor superb. The melons are very uniform in size, shape and quality, making it especially desirable for market. Our stock comes direct from a famous grower in the noted melon-growing district at Rockyford, Colorado. We offer two grades of seed, one coming from the choicest selected melons and the other from regular stock saved from an entire field set aside for seed production. Price: **Selected from Best Melons**, Pkt., 10c; Oz., 20c; ¼ Lb., 50c; Lb., \$1.75. **Regular Stock**, Pkt., 5c; Oz., 15c; ¼ Lb., 35c; Lb., \$1.00.





Southern Rattlesnake.

Halbert Honey.

Wassermelone

## WATERMELON

Sandia

Best results are obtained by planting on decidedly rich soil, in hills eight feet apart, the hills being especially fertilized. Do not plant the seed until the soil is warm and dry, sowing ten or twelve seeds to the hill and thinning out all but two or three of the strongest. Be very careful of the vines in cultivating as they are very tender.

**ALABAMA SWEET**—A favorite melon in the South, where it is largely grown for shipment North. The fruits are large, of oblong shape, having a dark, irregularly striped rind, that is thin but very tough. The flesh is very bright red, fine grained, sweet, and the seeds are white. Pkt., 5c; Oz., 10c;  $\frac{1}{4}$  Lb., 15c; Lb., 50c.

**CITRON GREEN-SEEDED**—Very similar to our Citron Red-Seeded except for color of seeds. Pkt., 5c; Oz., 10c;  $\frac{1}{4}$  Lb., 15c; Lb., 50c.

**COLE'S EARLY**—A very early, hardy variety that will mature in Northern states. Medium sized, nearly round, the green rind striped with lighter shades. Flesh bright red, seeds black. Being brittle, it is unsuited for shipping but is excellent for home use. Pkt., 5c; Oz., 10c;  $\frac{1}{4}$  Lb., 25c; Lb., 75c.

**CUBAN QUEEN**—A large early variety that originally came from the West Indies. The melons are large, oblong and slightly tapering at the stem end. Skin striped attractively with light and dark green, thin but tough enough for shipping. Flesh bright red, firm and of fine flavor. Pkt., 5c; Oz., 10c;  $\frac{1}{4}$  Lb., 15c; Lb., 50c.

**DARK ICING**—A medium sized melon, nearly round, dark green; flesh very solid, bright red and very sweet flavored. A good shipping sort. Pkt., 5c; Oz., 10c;  $\frac{1}{4}$  Lb., 15c; Lb., 50c.

**DIXIE**—A large striped variety that is excellent for shipping or for table use. Very large melons from twenty inches to two feet in length, skin dark green striped with a lighter shade. Flesh red, juicy and very sweet. Pkt., 5c; Oz., 10c;  $\frac{1}{4}$  Lb., 15c; Lb., 50c.

**EARLY FORDHOOK**—An extra early, very large variety that ripens nearly with Cole's Early. Melons are large, oval, dark green, flesh bright red, crisp, sweet and fine flavored. A good shipper. Pkt., 5c; Oz., 10c;  $\frac{1}{4}$  Lb., 15c; Lb., 50c.

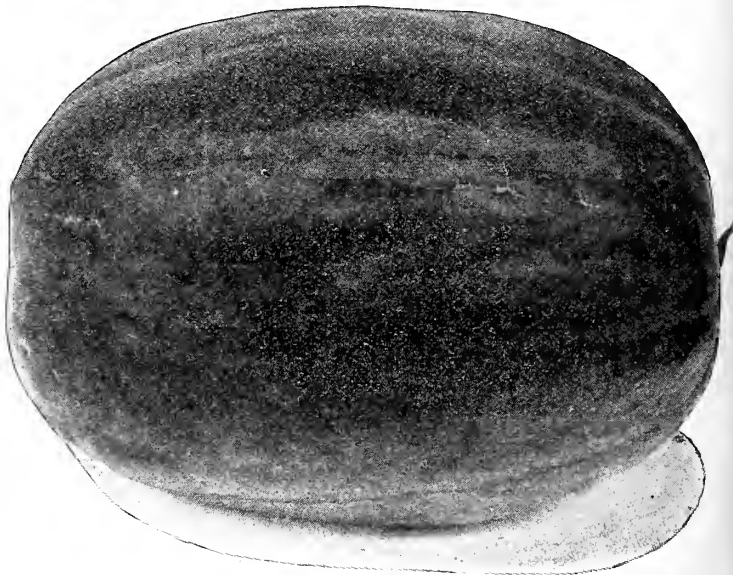
**FLORIDA FAVORITE**—A large, oblong melon that ripens ten days earlier than Kolb's Gem. Dark green skin striped with lighter shade, flesh bright red, sweet and tender. Vines vigorous and productive. Pkt., 5c; Oz., 10c;  $\frac{1}{4}$  Lb., 15c; Lb., 50c.

**GREY MONARCH**—A very large late oblong melon, skin mottled greyish-green, flesh crimson and sweet. Pkt., 5c; Oz., 10c;  $\frac{1}{4}$  Lb., 15c; Lb., 50c.

**GYPSY or GEORGIA RATTLESNAKE**—An old standard sort that is very popular, especially in the South. Very large, oblong, distinctly striped and mottled; flesh dark red and very sweet. Skin firm and solid, making it a good shipping sort. Pkt., 5c; Oz., 10c;  $\frac{1}{4}$  Lb., 15c; Lb., 50c.

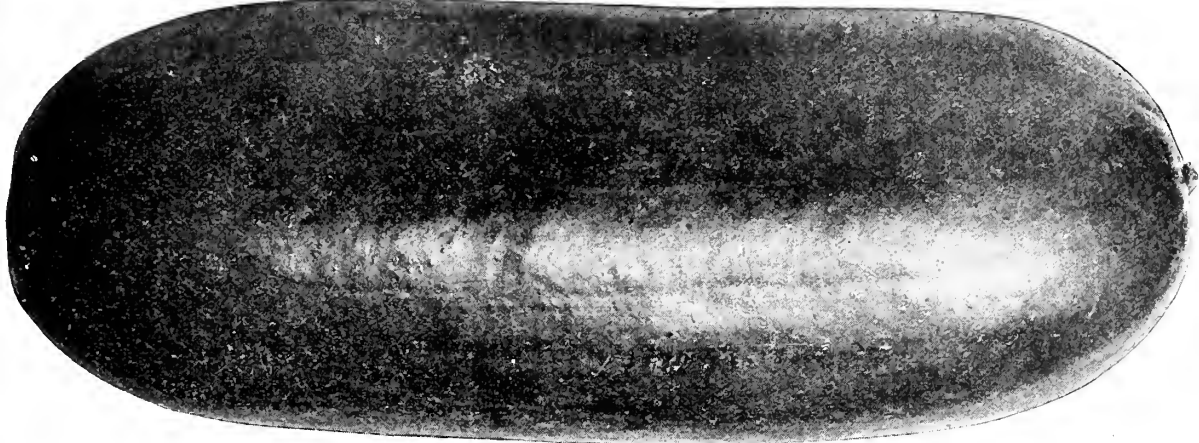
**HALBERT HONEY**—One of the sweetest and best for the home garden. Fruit eighteen or twenty inches long, skin dark green, thin rind, flesh bright crimson and of sweet flavor. A splendid variety either for home use or for local markets. Pkt., 5c; Oz., 10c;  $\frac{1}{4}$  Lb., 25c; Lb., 75c.

**ICEBERG**—As good a shipper as Kolb's Gem, but the flesh is much darker and sweeter. Melons are larger, oval, very dark green with very tough rinds that do not crack in shipping. Pkt., 5c; Oz., 10c;  $\frac{1}{4}$  Lb., 20c; Lb., 60c.



Early Fordhook.





Tom Watson.

**ICE CREAM OR PEERLESS**—One of the very best early varieties for home use or for close markets. Medium sized, oval to long in shape, flesh very red and of the sweetest flavor. The rinds are thin, making it a poor shipper, but it is fine for local markets. Pkt., 5c; Oz., 10c; ¼ Lb., 15c; Lb., 50c.

**KLECKLEY'S SWEET**—One of the sweetest and best for the home garden or nearby markets. The vines are vigorous and productive, melons medium to large, oblong, dark green; flesh a bright red, crisp, tender and exceedingly fine flavored and sweet. The thin rinds make them undesirable for shipping. Pkt., 5c; Oz., 10c; ¼ Lb., 20c; Lb., 60c.

**McIVER'S WONDERFUL SUGAR**—An oblong fruited, rather large variety, twenty inches in length, skin marked with broad stripings of light green on a dark ground. Flesh pale pink, very crisp and thick. An excellent shipper. Pkt., 5c; Oz., 10c; ¼ Lb., 15c; Lb., 50c.

**MOUNTAIN SWEET**—An old standard variety that does well in the Northern states. Rather long and late, of excellent quality. Pkt., 5c; Oz., 10c; ¼ Lb., 15c; Lb., 50c.

**PHINNEY**—Very early, good size, oblong, excellent quality; hardy and productive. Pkt., 5c; Oz., 10c; ¼ Lb., 15c; Lb., 50c.

**TRIUMPH**—A very large, handsome variety grown chiefly in the South for shipping. Dark green skin, flesh dark red and of good quality. Pkt., 5c; Oz., 10c; ¼ Lb., 20c; Lb., 60c.

**KOLB'S GEM**—A very popular shipping melon largely grown in the South. Melons are of large, oval, blocky form; skin handsomely marked in stripes of light and dark green. Flesh bright red and sweet. A splendid keeper and a good shipper. Pkt., 5c; Oz., 10c; ¼ Lb., 15c; Lb., 50c.

**PRESERVING CITRON (Red Seeded)**—For preserves or pickles. Medium sized, round, flesh white with red seeds. Not suitable for eating raw. Vines are hardy and vigorous, the fruits ripening rather late and keeping for a long time. Pkt., 5c; Oz., 10c; ¼ Lb., 25c; Lb., 75c.

**SWEETHEART**—A most popular market variety, grown extensively in the South for shipping. The fruits are very large, oval, pale green skin, attractively veined with a darker shade; the rind is thin but firm; flesh is deep red, very firm and sweet flavored. Remains in condition much longer than most sorts. Pkt., 5c; Oz., 10c; ¼ Lb., 15c; Lb., 50c.

**TOM WATSON**—One of the largest and finest melons grown, being equally good for home use and for shipping. Rather long in shape and will often weigh from thirty to fifty pounds. Fine quality, sweet and tender, rind thin but very tough, making it a splendid shipper. Pkt., 5c; Oz., 10c; ¼ Lb., 15c; Lb., 50c.

## Senf **MUSTARD** Mostaza

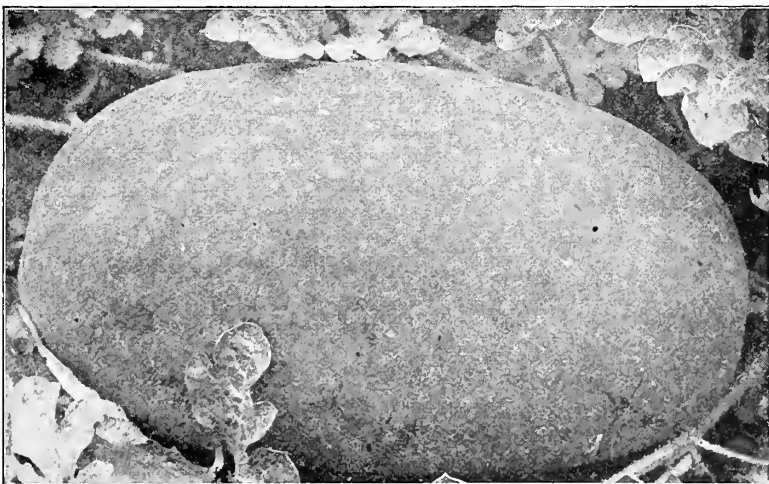
Sow in spring as early as possible in drills eighteen inches apart, covering one-half inch. Water freely. Sow every few weeks for succession. In the South it may be sown in the fall.

**BLACK OR BROWN**—The mustard of commerce. Pkt., 5c; Oz., 10c; ¼ Lb., 15c; Lb., 40c.

**CHINESE BROAD LEAVED**—Leaves twice the size of ordinary mustard. The flavor is sweet and pungent, and it is very easily prepared for table use. Pkt., 5c; Oz., 10c; ¼ Lb., 15c; Lb., 45c.

**SOUTHERN GIANT CURLED**—The true Southern variety, much grown there for greens. Leaves very large, much crumpled and curled. Has a more delicate flavor than Chinese Broad Leaved. Pkt., 5c; Oz., 10c; ¼ Lb., 15c; Lb., 45c.

**WHITE LONDON**—Leaves rather small, smooth and deeply cut; of a medium dark green color. A very rapid grower and the leaves when young are mild and tender. Pkt., 5c; Oz., 10c; ¼ Lb., 15c; Lb., 45c.



Sweetheart.

## Ocher **OKRA OR GUMBO** Gombo

The pods of this vegetable are very highly esteemed in the South for use in soups and stews and should be more widely used in the North. Plant in good, warm, rich soil after danger from frost is over, in rows thirty inches apart, the plants being one foot apart in row. The pods must be used when young.

**PERKINS' MAMMOTH**—Plants about three feet tall; pods four to five inches long, of handsome appearance, soft green in color, tender and of good quality, remaining tender until nearly full size. Pkt., 5c; Oz., 10c; ¼ Lb., 20c; Lb., 50c.

**WHITE VELVET**—Plants three feet tall and of handsome appearance; pods four or five inches long, round and of a white velvety appearance; quality is excellent and the pods remain in their prime for a long time. Pkt., 5c; Oz., 10c; ¼ Lb., 20c; Lb., 50c.



# Zwiebel ONION Cebolla

**S**OW the seed as early in the spring as the ground can be worked, even if the weather is cold. This is important, in order that the plants may have a good start before dry weather sets in, and also to get ahead of the weeds.

Have the soil very thoroughly pulverized and a perfect seed bed. Sow four or five pounds per acre in drills a foot apart and about one-quarter inch deep. For sets sow forty to eighty pounds of seed per acre. When the plants are four inches high, thin out to stand three or four inches apart in rows. Keep well cultivated and free from weeds. The best shaped and best colored bulbs are produced where large quantities of well rotted manure are used. If this is not available, an abundance of high grade commercial fertilizer should be applied. Wood ashes are very beneficial, and make the onions keep better.

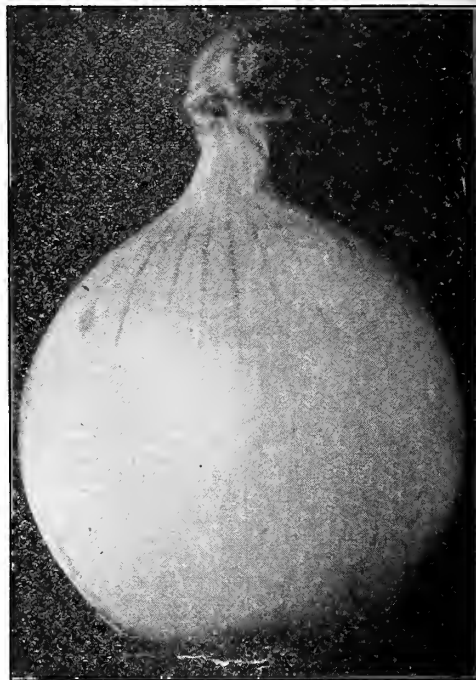
**AILSA CRAIG**—By some this is considered the largest onion grown, and in addition it is of excellent quality, mild and tender. In color and general appearance it is not greatly unlike Ohio Yellow Globe. The seed crop has practically failed two years in succession, and seed is very difficult to obtain. Pkt., 10c; Oz., 40c; ¼ Lb., 75c; Lb., \$4.50.

**AUSTRALIAN BROWN**—One of the very best keeping onions. Medium sized, globe shape, brown skin with very white, crisp, solid, mild flesh. It keeps longer than any other variety that we know of. Pkt., 5c; Oz., 15c; ¼ Lb., 30c; Lb., \$1.25.

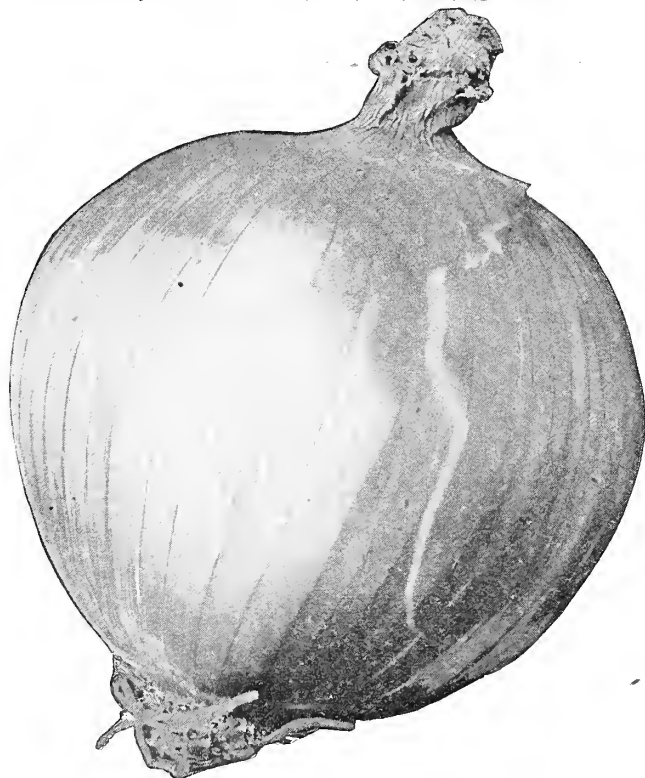
**CHESTER'S FLAT CANARY**—A new onion of merit, especially adapted to raising sets. The introducer, who is an onion set merchant, thinks that it will soon supplant all other kinds of onions for sets. Medium to large sized, very uniform, flat, and of an attractive bright yellow color. The flesh is fine grained, creamy-white, and of mild flavor. A very uniform producer and a splendid keeper. Pkt., 10c; Oz., 20c; ¼ Lb., 70c; Lb., \$1.50.

**CHESTER'S GLOBE CANARY**—Globe shaped and a little smaller than Chester's Flat Canary, but otherwise very similar. Attractive canary-yellow color, uniform, creamy-white flesh of mild flavor. A splendid market onion and a good producer. Pkt., 10c; Oz., 20c; ¼ Lb., 70c; Lb., \$1.50.

**EXTRA EARLY RED**—The very earliest to mature, yet of fair size and very solid. Flat shaped, purplish-red, thin skin, of good quality and moderately strong. Yields well and is fine for cool climates or for early market. Pkt., 10c; Oz., 20c; ¼ Lb., 70c; Lb., \$1.50.



Southport White Globe.



Prizetaker.

**LARGE RED WETHERSFIELD**—A very popular standard variety, one of the best for yields as well as for keeping, well flattened but thick through, large and heavy, the skin purplish-red, smooth and glossy. It is excellent to grow for late winter markets, does well on poor soils and in the South; is not well adapted to muck land. We think that our stock cannot be excelled. Pkt., 10c; Oz., 25c; ¼ Lb., 75c; Lb., \$1.90.

**OHIO YELLOW GLOBE**—A very handsome variety that is largely used by the onion growers of Ohio and Indiana. Bulbs are globe shaped, large and very uniform, there being few large necks. The flesh is white, solid, small zoned and of fine quality. Rather late, very productive and a splendid keeper, selling well at any time during the winter. Our stock is selected with great care and is the best possible to obtain. Pkt., 10c; Oz., 25c; ¼ Lb., 75c; Lb., \$2.75.

**PRIZETAKER**—A handsome late or main crop variety, nearly globular in form, often growing to a very large size. This is the variety that is often seen in crates in the fruit stores and which attracts so much attention for its large size. Originally an imported onion, but our stock has been thoroughly acclimatized. Outer skin is yellow with creamy-white flesh, mild, tender and fine flavored. Not as good a keeper as some of the smaller varieties, but excellent for fall and early winter use. Pkt., 5c; Oz., 20c; ¼ Lb., 65c; Lb., \$2.00.

**SOUTHPORT LARGE RED GLOBE**—The handsomest of all the red onions. Medium to large size, globe-shaped, small necks, uniform and of a deep, purplish red color. Flesh is lightly tinted purple in an attractive way. A good yielder, markets well, and keeps well. Price: **Eastern Grown Seed**, Pkt., 10c; Oz., 25c; ¼ Lb., 75c; Lb., \$2.50. **Western Grown Seed**, Pkt., 5c; Oz., 20c; ¼ Lb., 60c; Lb., \$2.00.

**SOUTHPORT LARGE WHITE GLOBE**—A handsome onion that usually commands the highest price on market. Of true globe shape, pure white skin, medium large with small necks. Flesh pure white, of good quality and mild. Our stock runs very uniform and productive, and we are sure it is unexcelled. **Eastern Grown Seed**, Pkt., 10c; Oz., 40c; ¼ Lb., \$1.10; Lb., \$4.00. **Western Grown Seed**, Pkt., 10c; Oz., 35c; ¼ Lb., \$1.00; Lb., \$3.50.



**SOUTHPORT YELLOW GLOBE**—Very similar to Red Globe except that the color is a pale yellow. Medium sized, very uniform, thin necks, heavy outer skin and mild. Sells well on all markets, is very productive, a good keeper and shipper. **Eastern Grown Seed**, Pkt., 10c; Oz., 30c; ¼ Lb., 85c; Lb., \$2.75. **Western Grown Seed**, Pkt., 5c; Oz., 20c; ¼ Lb., 60c; Lb., \$2.00.

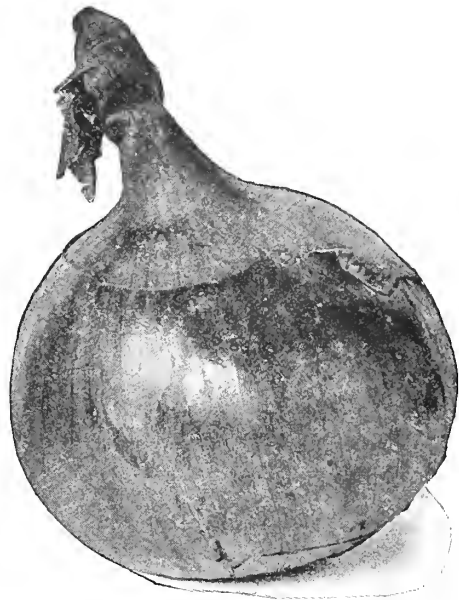
**WHITE BARLETTA or WHITE QUEEN**—An extra early onion that is much prized by housewives for pickles. The earliest of all to mature, it is flat shaped, one to two inches in diameter, with a thin, waxy silver-like skin. Pkt., 5c; Oz., 25c; ¼ Lb., 70c; Lb., \$2.00.

**WHITE PORTUGAL or SILVER SKIN**—A universal favorite with gardeners. It is early and grows to medium size. Bulbs are flat, thin white skin, of good quality and mild. They are grown for sets, for green onions or bunching, and for fall and early winter use. Our seed is grown by a French expert and is of the finest strain. Pkt., 5c; Oz., 30c; ¼ Lb., 75c; Lb., \$2.75.

**YELLOW DANVERS**—A popular early flat variety that is excellent either for home use or main crop for gardeners. Flat but thick bulbs, thin necks, thick brownish-yellow skin, of good quality and mild. Uniform in size, sure in ripening and very productive. Pkt., 5c; Oz., 15c; ¼ Lb., 45c; Lb., \$1.50.

**YELLOW GLOBE DANVERS**—A very extensively used main crop variety that is a standard in many markets for winter use. A little earlier but not as perfectly globe-shaped as our Southport Yellow Globe. Medium to large size, skin a rich brownish-yellow, flesh pure white and with thin necks. Ripens uniformly and keeps very well. Our stock is from a highly improved strain and will be found very superior. Pkt., 5c; Oz., 15c; ¼ Lb., 45c; Lb., \$1.50.

**YELLOW DUTCH or STRASBURG**—A splendid variety for sets. The bulbs are very similar to Yellow Danvers excepting that they are a little more flattened and have a darker yellow skin. Ripens early and is a splendid keeper. Pkt., 5c; Oz., 20c; ¼ Lb., 70c; Lb., \$2.25.



Yellow Globe Danvers.

## ONION SETS

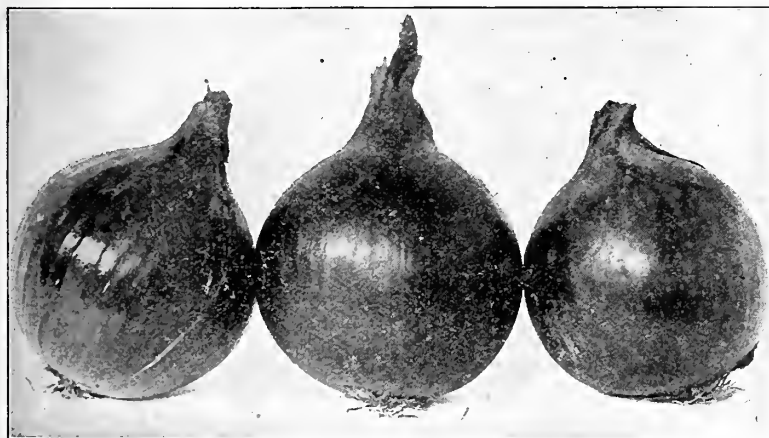
It is impossible, as this catalogue is written, to fix prices for sets. We follow the market and will fill orders at market prices. In bushel, peck and one-half peck prices, the buyers pay the express or freight. In pint and quart prices, we pay the postage and send the sets by mail.

### Mail Postpaid.

	Pt.	Qt.
Red Bottoms .....	20c	30c
White Bottoms .....	20c	35c
Yellow Bottoms .....	20c	25c
Yellow Multipliers .....	20c	25c
Yellow Potato .....	20c	25c

### Express Not Paid.

	½ Pk.	Pk.	Bu.
Red Bottoms .....	80c	\$1.50	\$5.00
White Bottoms .....	90c	1.75	5.25
Yellow Bottoms .....	70c	1.25	4.50
Yellow Multipliers .....	60c	1.00	3.75
Yellow Potato .....	60c	1.00	3.75



Southport Red Globe.

## PARSLEY

**EXTENSIVELY** used for garnishing and for flavoring soups and stews. Sow on rich soil, in drills one foot apart, covering the seed very lightly. It is slow to germinate, requiring two or three weeks. Thin plants to four inches apart.

**FERN LEAVED**—Very beautiful and artistic in form and color, very decorative for garnishing. Dark green, fine cut, fern-like leaves. Pkt., 5c; Oz., 15c; ¼ Lb., 35c; Lb., \$1.10.

**HAMBURG or THICK-ROOTED**—A plain leaved variety, forming a long, thick, edible root which is much used in soups and stews. Pkt., 5c; Oz., 15c; ¼ Lb., 40c; Lb., \$1.25.

**MOSS CURLED**—Very handsomely curled and crumpled, bright green and ornamental. Pkt., 5c; Oz., 10c; ¼ Lb., 20c; Lb., 50c.

**PLAIN**—Leaves plain, flat, deeply cut but not curled. Much used for soups and stews. Pkt., 5c; Oz., 10c; ¼ Lb., 20c; Lb., 50c.

Pastinake

## PARSNIP

Chirivia

**PARSNIPS** are best grown on a rich, deep, sandy soil but will make good roots on any moderately rich, deep, mellow soil. The seed is sometimes slow to germinate and should be sown as early as possible in drills 2½ feet apart. Cover to the depth of a half inch, and press the soil firmly over the seed. Give frequent cultivation and thin the plants to six inches apart in the row. One ounce of seed will sow 100 feet of drill.

**HOLLOW CROWN**—The old standard table variety. A large cropper of excellent quality. Requires a deep soil. Pkt., 5c; Oz., 10c; ¼ Lb., 25c; Lb., 75c.

**GUERNSEY**—The roots are longer than the preceding. Flesh fine grained and flavor excellent. Pkt., 5c; Oz., 10c; ¼ Lb., 25c; Lb., 75c.



Moss Curled.

# Erbsen PEAS Guisante

**P**EAES do well on almost any warm, fertile soil. Too much manure or a very rich, mucky soil should be avoided, as they cause too rank a growth of vine with a rather small proportion of pods. Sow for quick returns as early as possible in the spring, in double rows one inch deep, the rows being six inches apart and two and a half to four feet between the double rows. For late crop, however, larger returns will be obtained by planting in trenches six or eight inches deep, covering the seed an inch deep, and later after the vines have grown up above the trench, filling in level with the top of the ground. All varieties do better if planted early, and a succession may be had by choosing early, medium and late varieties to sow. Under unfavorable conditions the tall varieties are more certain to succeed and will yield heavier than those of dwarf habit. One quart will plant one hundred feet of drill. Wrinkled sorts are designated by asterisk (\*).

**\*LITTLE MARVEL**—This variety, which appeared a few years ago, has simply taken the country by storm. Everyone likes it, and deservedly so. It is practically as early as any wrinkled variety, yields remarkably well, is attractive in appearance, and all matures with about two pickings. The quality is of the very best. We cannot recommend this Pea too highly. Pkt., 10c; Pt., 15c; Qt., 30c; ½ Pk., \$1.00; Pk., \$1.75; Bu., \$6.75.

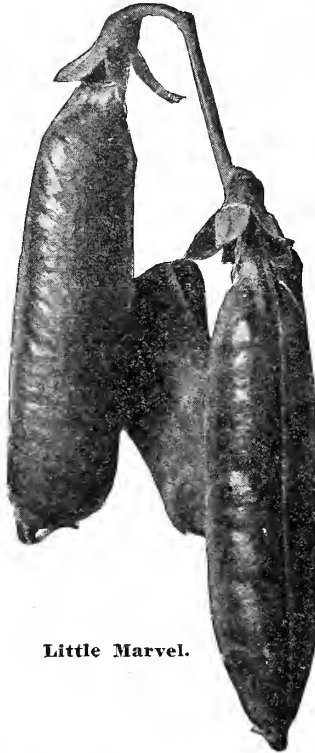
**ALASKA**—The earliest of all and one of the surest to make a crop. An invaluable variety for market gardeners and canners, as it ripens all at one picking. Smooth, blue peas are of good quality. Pkt., 10c; Pt., 15c; Qt., 30c; ½ Pk., 90c; Pk., \$1.65; Bu., \$6.00.

**\*AMERICAN WONDER**—One of the earliest dwarf, wrinkled peas. Vines ten to twelve inches high, pods small but well filled with large, very sweet peas. A good yielder and one we can recommend for early use. Pkt., 10c; Pt., 20c; Qt., 35c; ½ Pk., \$1.20; Pk., \$2.25; Bu., \$8.00.

**MARKET SURPRISE**—A new first early Pea, three days earlier than Pedigree Extra Early, a heavy producer and with the pods approaching Gradus in size. Pkt., 10c; Pt., 20c; Qt., 35c; ½ Pk., \$1.25.

**\*ALDERMAN**—One of the finest of the midseason varieties. The vines are four to five feet tall and should have supports; pods are long, containing seven or eight large, wrinkled peas of very fine flavor and quality. Pkt., 10c; Pt., 20c; Qt., 35c; ½ Pk., \$1.15; Pk., \$2.00; Bu., \$7.50.

**\*ADVANCER**—A second early sort very popular on account of its hardiness, productiveness and superior quality. The vines are about two and a half feet, very strong, and in dry seasons will stand heat better than any other with the exception possibly of Little Marvel. Very productive of medium sized pods that are well filled with large peas of good quality. Pkt., 10c; Pt., 15c; Qt., 30c; ½ Pk., \$1.00; Pk., \$1.75; Bu., \$7.00.

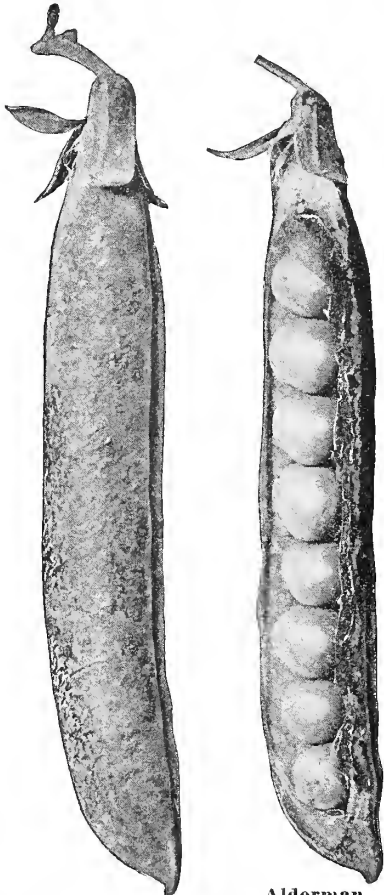


Little Marvel.

**\*BOSTON UNRIVALLED**—An improved Telephone. Vines grow sometimes 5 feet tall. Pods five inches long, three-fourths inches broad, containing seven or eight very large Peas. The yield is heavy and flavor excellent. Pkt., 10c; Pt., 20c; Qt., 30c; ½ Pk., \$1.10; Pk., \$2.00; Bu., \$7.50.

**\*BUTTERCUP**—A splendid new second early pea that comes in between Gradus and Telephone. The vines are medium in height; very erect and stand drouth exceedingly well. The pods are long, comparing in this respect with Telephone, and contain eight or nine large peas of fine taste and quality. The pods are produced in pairs and the vines are remarkably free bearing, it being one of the best yielding varieties in our trial grounds this last year. In fact, this pea possesses all of the good qualities of Telephone and Boston Unrivalled, and in addition is earlier and the vines grow only from sixteen to twenty inches high. This is a splendid second early sort for gardeners and is fast supplanting the old favorite, Carter's Daisy. Pkt., 10c; Pt., 20c; Qt., 35c; ½ Pk., \$1.20; Pk., \$2.25; Bu., \$8.50.

**\*YORKSHIRE HERO**—A hardy second early variety with stout, spreading, medium height plants. The vines are productive and bear an abundance of broad, well filled pods of excellent quality. Pkt., 10c; Pt., 15c; Qt., 30c; ½ Pk., 90c; Pk., \$1.65; Bu., \$6.50.

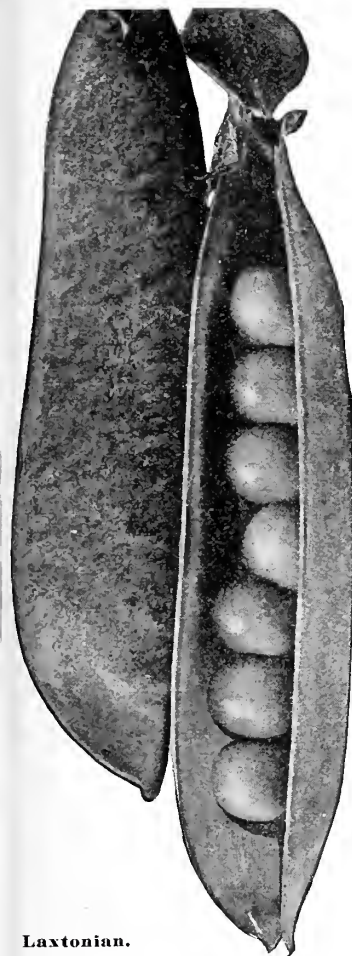


Alderman.



Buttercup.





Laxtonian.

**\*CHAMPION OF ENGLAND**—One of the best of the tall growing late varieties. The vines are very productive, the pods of medium size and full of large light green peas of very superior quality. Pkt., 10c; Pt., 15c; Qt., 25c; ½ Pk., \$1.00; Pk., \$1.75; Bu., \$6.00.

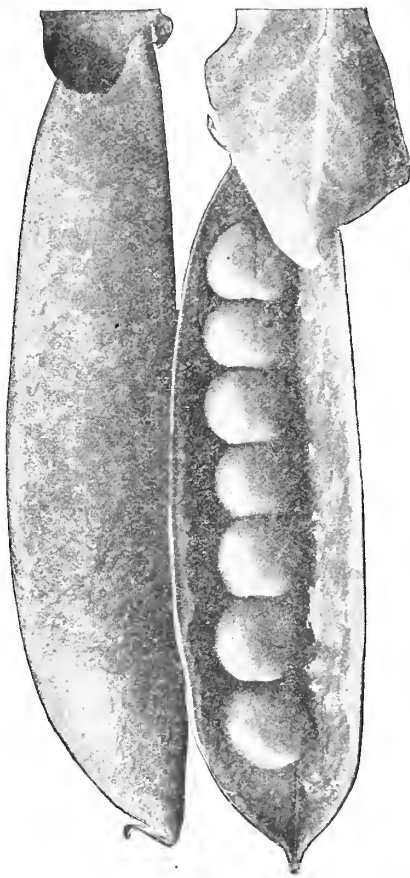
**\*DWARF CHAMPION**—A dwarf form of Champion of England. The vines are of medium height, hardy, vigorous and very productive. The medium sized pods are borne in great abundance and the peas are of very fine quality. This variety is a standard main crop variety for either the home or market garden. Pkt., 10c; Pt., 20c; Qt., 30c; ½ Pk., \$1.20; Pk., \$2.00; Bu., \$7.50.

**\*EVERBEARING**—The vines of this variety if kept picked will continue to bear longer than any other sort, making it very valuable for the home garden. It is rather late and the vines are of vigorous growth; pods medium length and well filled with large peas of very fine quality. Pkt., 10c; Pt., 20c; Qt., 30c; ½ Pk., \$1.00; Pk., \$1.90; Bu., \$7.00.

**\*GRADUS or PROSPERITY**—One of the earliest of all the large podded wrinkled peas. The vines grow about three feet high; pods are long, peas are large and of a beautiful light green color. Good quality and a good yielder. A standard sort and one that is difficult to improve on. Pkt., 10c; Pt., 20c; Qt., 30c; ½ Pk., \$1.20; Pk., \$2.25; Bu., \$8.50.

**\*HORSFORD'S MARKET GARDEN**—A very prolific main crop sort that is much used for the canning factories. In general appearance it is much like Dwarf Champion, being dwarf in habit and of very good appearance. Frequently it outyields every other variety and the quality is very good. Pkt., 10c; Pt., 20c; Qt., 30c; ½ Pk., \$1.20; Pk., \$2.00; Bu., \$7.00.

**\*IMPROVED STRATEGEM**—A standard, large podded, main crop variety that is largely planted because of its superior quality and fine flavor. The vines are vigorous but grow only about twenty inches high, the pods are very large, pointed, dark green and well filled with large, dark green peas of the finest flavor. It is a heavy cropper. Pkt., 10c; Pt., 20c; Qt., 30c; ½ Pk., \$1.25; Pk., \$2.25; Bu., \$8.50.



Gradus.

**\*LAXTONIAN**—Sometimes known as "The Dwarf Gradus." It possesses all of the good qualities of the Gradus and in addition it is quite dwarf and needs no supports. The pods are large and well filled with large peas of good quality. The yield is very good. Pkt., 10c; Pt., 20c; Qt., 30c; ½ Pk., \$1.10; Pk., \$2.00; Bu., \$7.50.

**\*NOTT'S EXCELSIOR**—One of the standard dwarf early sorts. Nearly as early as Alaska, a heavier yielder and of better quality. The vines are about fifteen inches high, pods medium sized and contain from five to six large peas of very sweet flavor. Pkt., 10c; Pt., 20c; Qt., 30c; ½ Pk., \$1.00; Pk., \$1.75; Bu., \$6.50.

**\*PIONEER**—A splendid new Pea on the same type as Laxtonian, but three or four days earlier and yielding much heavier than Laxtonian; fully equal to it in quality. Both market gardeners and private growers will welcome this variety. Pkt., 10c; Pt., 20c; Qt., 35c; ½ Pk., \$1.15; Pk., \$2.25; Bu., \$8.00.

**\*PREMIUM GEM**—A splendid early wrinkled pea maturing only a few days later than American Wonder. The vines are about fifteen inches in height, pods are long and contain five or six large peas of good quality. Pkt., 10c; Pt., 20c; Qt., 30c; ½ Pk., \$1.00; Pk., \$1.75; Bu., \$6.50.

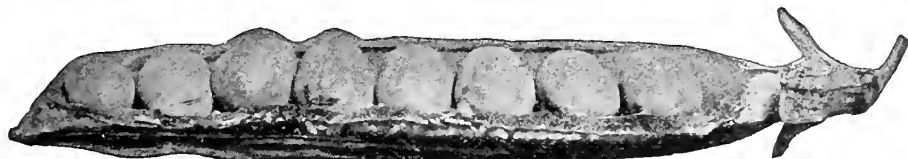
**\*THOMAS LAXTON**—A medium sized variety closely resembling Gradus, two or three days later, and considered by many to be of finer quality. Vines vigorous, pods large and well filled, peas large, darker green than Gradus, with very attractive appearance. Pkt., 10c; Pt., 15c; Qt., 30c; ½ Pk., \$1.15; Pk., \$2.25; Bu., \$9.00.

**\*QUITE CONTENT**—A very large podded, heavy yielding, new variety that matures a few days later than Telephone. The vines usually grow five or six feet tall and should be brushed. The pods are very large and bear seven or eight large peas of very fine flavor and quality. It is a splendid yielder, and as its merits are becoming more widely known it is coming into much prominence. Pkt., 10c; Pt., 25c; Qt., 35c; ½ Pk., \$1.20; Pk., \$2.25; Bu., \$9.00.

**\*SUTTON'S EXCELSIOR**—A new, first early, dwarf wrinkled pea of great value. Vines eighteen inches high, pods square at lower end, larger and broader than most dwarf Peas. A very hardy variety, which permits early planting; yields heavy. Season two days later than Nott's Excelsior. Pkt., 10c; Pt., 25c; Qt., 35c; ½ Pk., \$1.25; Pk., \$2.25; Bu., \$8.50.

**\*TELEGRAPH**—Stronger growing, hardier and with darker foliage than Telephone. The handsome pods are long and well filled with large smooth peas. An excellent sort for the market gardener as it will yield well under very adverse conditions. Pkt., 10c; Pt., 20c; Qt., 30c; ½ Pk., \$1.25; Pk., \$2.25; Bu., \$8.00.

**\*TELEPHONE**—A standard general purpose, main crop variety and very largely grown by gardeners whose trade appreciate fine quality. It is a tall growing, medium late sort, with very large pods bearing six or seven peas of delicious flavor. The vines are prolific and remain in bearing for quite a long time if kept picked. Pkt., 10c; Pt., 20c; Qt., 30c; ½ Pk., \$1.25; Pk., \$2.25; Bu., \$8.00.



Telephone.



**\*DUKE OF ALBANY**—A handsome, tall growing pea of the Telephone type, only with darker foliage and pods. The pods are very large and well filled with extra large, very sweet peas of a dark green color. The vines are drouth resistant and very productive. Pkt., 10c; Pt., 20c; Qt., 35c; ½ Pk., \$1.20; Pk., \$2.25; Bu., \$8.50.

**WHITE MARROWEAT**—A late and tall growing variety, yielding very well for us, and of excellent quality. The pods are medium to large and uniform. It stands heat and drouth admirably. Pkt., 10c; Pt., 15c; Qt., 30c; ½ Pk., 90c; Pk., \$1.60; Bu., \$6.25.

## EDIBLE PODDED OR SUGAR PEAS

**EDIBLE PODDED PEAS** are, as the name implies, supposed to be eaten pod and all like Snap Beans. They are always quite prolific. The pods when in their prime are good sized but tender, and of good flavor. We could hardly say that they are as good to eat as shelled peas, although they are nearly so, and many people greatly prefer them to Snap Beans. They are certainly economical, and we think very well worth growing. Housewives will appreciate them when they realize that it is only a small fraction of the work to prepare these for cooking that it is with the shell varieties.

**DWARF GREY SUGAR**—This variety like all of the Sugar Peas is cooked pod and all like string beans, and when young they are very good to eat. The vines grow about eighteen inches, pods are medium sized, tender and very sweet. It is decidedly prolific. Pkt., 10c; Pt., 20c; Qt., 35c; ½ Pk., \$1.20; Pk., \$2.25; Bu., \$9.00.

**MAMMOTH PODDED SUGAR**—A tall growing edible pod, the vines being very vigorous and the pods much larger than the Dwarf Grey Sugar. The vines are prolific and the quality excellent. Pkt., 10c; Pt., 20c; Qt., 35c; ½ Pk., \$1.25; Pk., \$2.30; Bu., \$9.50.

**TALL GREY SUGAR**—A new variety and one of the best of the edible pods. The vines are quite tall, the pods medium sized, tender and of good quality. The vines are prolific and quite hardy. Pkt., 10c; Pt., 30c; Qt., 50c; ½ Pk., \$2.00; Pk., \$3.50.



Duke of Albany.

Speise Kurbisse

## PUMPKIN

Calabaza

**PUMPKINS** are very similar in their culture to the Squashes and other vine crops, except that they are not so particular as to soil and cultivation. They may be planted in the corn field or in the garden, sometime in May, in hills eight or ten feet apart each way. One ounce will plant twenty-five hills; four pounds, an acre. In a small garden they may be planted near a fence and allowed to climb over it.

**BIG TOM or IMPROVED LARGE FIELD**—This we have found to be the heaviest yielding stock pumpkin that we have ever grown. Size usually 12 to 15 inches in length, about 12 inches in diameter, a deep orange color; may be used for pies, but is coarse grained. Pkt., 5c; Oz., 10c; ¼ Lb., 15c; Lb., 45c.

**CALHOUN**—A slim necked, medium sized long variety with dark skin and extraordinarily thick, fine grained flesh. Fine for pies. Pkt., 5c; Oz., 15c; ¼ Lb., 20c; Lb., 60c.

**GOLDEN OBLONG**—Orange skin, light yellow flesh; five to seven inches in diameter, twelve to eighteen inches in length. Good for pies; a good keeper and a splendid yielder. Pkt., 5c; Oz., 10c; ¼ Lb., 25c; Lb., 85c.

**GREEN STRIPED CUSHAW**—An old favorite, excellent for pies and sells well on market. Eighteen inches to two feet long, twelve inches in diameter, green striped with crooked neck. Flesh thick, yellow, coarse but sweet. Pkt., 5c; Oz., 10c; ¼ Lb., 30c; Lb., 90c.

**JAPANESE PIE**—Similar in size and shape to the Cushaw but the skin is a dark green. Flesh yellow, thick, of fine quality and very sweet. Productive and early. Pkt., 5c; Oz., 10c; ¼ Lb., 30c; Lb., \$1.00.

**KING OF THE MAMMOTHS**—The largest of all, often two feet or more in diameter and sometimes weighing over a hundred pounds. The skin is salmon-yellow and the flesh is thick and of a bright yellow. It is not as productive as some other varieties and a little coarse for pies. Pkt., 5c; Oz., 10c; ¼ Lb., 30c; Lb., \$1.00.

**LARGE SWEET CHEESE or KENTUCKY FIELD**—One of the old standard sorts. Flat and often 20 inches in diameter; skin buff; flesh thick, yellow, and of fine quality. Productive and an excellent keeper. Good for stock feeding as well as pies. Pkt., 5c; Oz., 10c; ¼ Lb., 25c; Lb., 75c.

**MAMMOTH TOURS**—A very large French variety that is good for exhibition purposes or stock feeding. Oblong shape; skin green; almost as large as King of the Mammoth and a trifle later. Pkt., 5c; Oz., 10c; ¼ Lb., 30c; Lb., 90c.

**QUAKER PIE**—Closely resembling Large Cheese excepting that it is oblong instead of flat. An excellent yielder and a good keeper. Good quality and makes fine pies. Pkt., 5c; Oz., 10c; ¼ Lb., 30c; Lb., 90c.

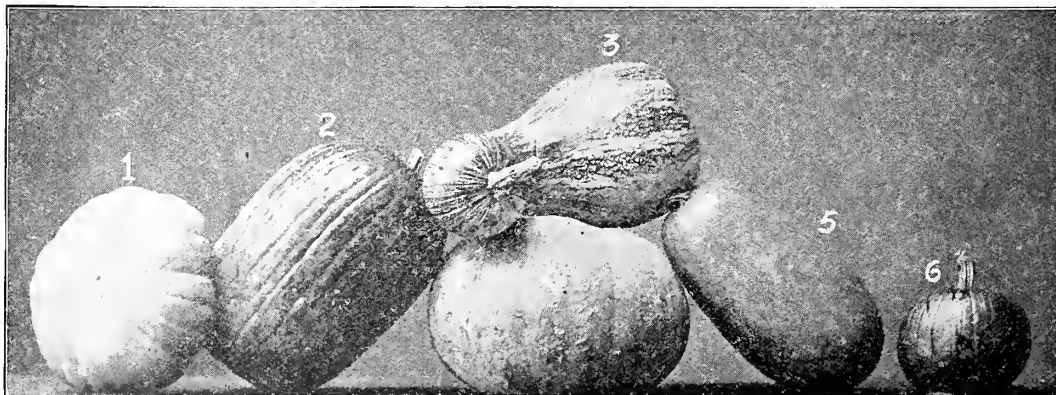
**SWEET or SUGAR**—A famous variety in New England. About ten inches in diameter, orange color, fine grained and of excellent flavor. A good keeper and one of the best for pies. Pkt., 5c; Oz., 10c; ¼ Lb., 20c; Lb., 60c.

### SWEET POTATO

Bell shaped, rather small but fine for pies. Flesh creamy-white, thick, and of fine quality and flavor. Pkt., 5c; Oz., 10c; ¼ Lb., 25c; Lb., 75c.

### WINTER LUXURY OR PIE SQUASH

A round variety, about eight or ten inches in diameter with a russet-yellow skin. Early and quite productive. The flesh is thick, yellow and of a very fine rich flavor. Makes excellent pies. Pkt., 5c; Oz., 15c; ¼ Lb., 40c; Lb., \$1.25.



1—Large Cheese. 2—Big Tom. 3—Striped Cushaw. 4—King of the Mammoths. 5—Golden Oblong. 6—Early Sugar.



Pfeffer **PEPPER** Pimiento

The culture is the same as for Egg Plant and the plants require as much heat to perfect them. Do not plant hot varieties and Mangoes close together. One ounce of seed will produce about two hundred plants.

**CAYENNE LONG RED**—Long, slender pods, bright red and very hot. Pkt., 5c; ½ Oz., 10c; Oz., 20c; ¼ Lb., 70c; Lb., \$2.25.

**CELESTIAL**—A very ornamental Chinese variety. The medium sized fruits are upright and are borne in profusion all over the plant. In different stages of ripening the fruits are nearly white, purple, yellow and orange, finally a bright scarlet, giving to the plant an unusual and very ornamental appearance. It is very hot and quite early. Pkt., 10c; ½ Oz., 15c; Oz., 30c; ¼ Lb., 80c.

**RED CHERRY**—A second early hot variety bearing round fruit an inch in diameter. Pkt., 5c; ½ Oz., 15c; Oz., 25c; ¼ Lb., 80c; Lb., \$2.75.

**RED CHILI**—A very hot, rather late variety that is similar in shape to Cayenne only smaller. Used for making pepper sauce. Pkt., 5c; ½ Oz., 15c; Oz., 25c; ¼ Lb., 80c; Lb., \$2.75.

**RED CLUSTER**—The small bushy plants are covered with bright red clusters, making it very ornamental. Medium sized pods, ripening rather late and very productive. Pkt., 5c; ½ Oz., 15c; Oz., 25c; ¼ Lb., 75c; Lb., \$2.75.

**CHINESE GIANT**—The largest as well as one of the sweetest of all the mild Red Peppers. Often grows four inches long by four inches in diameter and the flavor is mild. Rather late but bears very uniformly and abundantly for so large a variety. Pkt., 10c; ½ Oz., 25c; Oz., 45c; ¼ Lb., \$1.35; Lb., \$4.50.

**GOLDEN DAWN**—A mild golden variety, very much like Golden Queen and matures at the same time, rather early, a good yielder. Pkt., 5c; ½ Oz., 15c; Oz., 30c; ¼ Lb., 85c.

**GOLDEN QUEEN**—The largest sweet yellow pepper. Moderately early, productive and mild flavored. Pkt., 5c; ½ Oz., 15c; Oz., 30c; ¼ Lb., 85c; Lb., \$2.75.

**LARGE BELL or BULL NOSE**—A standard sweet red pepper for pickling and canning. Fruits are medium sized, thick fleshed and of mild flavor. Earlier than Ruby King and fairly productive. Pkt., 5c; ½ Oz., 10c; Oz., 20c; ¼ Lb., 70c; Lb., \$2.25.

**NEAPOLITAN**—The very earliest large pepper. Plants are quite tall, fruits are long, rather slender but meaty, bright red when ripe and very mild and sweet. The plants are very productive and ripen a week or more ahead of any other variety. Pkt., 5c; ½ Oz., 15c; Oz., 25c; ¼ Lb., 75c; Lb., \$2.50.

**PIMIENTO**—An exceptionally attractive and very productive variety. The fruits are medium sized, smooth and glossy green, becoming red as they mature. The meat is thick and of a fine sweet flavor. The plants are vigorous and of medium height. This sort is largely used by canners, but is equally valuable for salads and for stuffing. Pkt., 5c; ½ Oz., 15c; Oz., 25c; ¼ Lb., 75c; Lb., \$3.00.

**RUBY KING**—One of the most popular large red peppers. The fruits are quite large, bright red, fleshy, green when young, mild and fine flavored. Rather late in maturing and not so sure a cropper as some other varieties. Pkt., 5c; ½ Oz., 15c; Oz., 25c; ¼ Lb., 75c; Lb., \$2.50.

**SWEET MOUNTAIN**—Very similar to Bull Nose but with us a little earlier and more productive. The handsome red fruits are medium sized, fleshy, sweet and mild. Pkt., 5c; ½ Oz., 10c; Oz., 20c; ¼ Lb., 70c; Lb., \$2.25.

**UPRIGHT SWEET SALAD**—A moderately early variety of very superior quality. The plants are vigorous, the fruits are borne upright and are thick fleshed, tender, very sweet and mild. Pkt., 10c; ½ Oz., 20c; Oz., 35c; ¼ Lb., \$1.00; Lb., \$3.50.

**MIXED MANGOES**—This is a mixture of all the choicest varieties, in all colors and sizes, just suited for average family use. Pkt., 10c; three packets, 25c.



Celestial.

**TOBACCO**

**T**OBACCO SEED should be sown as early as possible in the spring after danger of frost is over. Usually a quantity of brush is burned and the ashes mixed with the soil. Then the seed may be sown, covering lightly. When the plants are six inches high transplant in rows four or five feet apart each way. It is very important to keep the ground well cultivated.

**BIG HAVANA**—A hybrid Havana or Cuban seed leaf. A heavy cropper and one of the earliest cigar leaf varieties. Pkt., 10c; Oz., 25c; ¼ Lb., \$1.00; Lb., \$3.50.

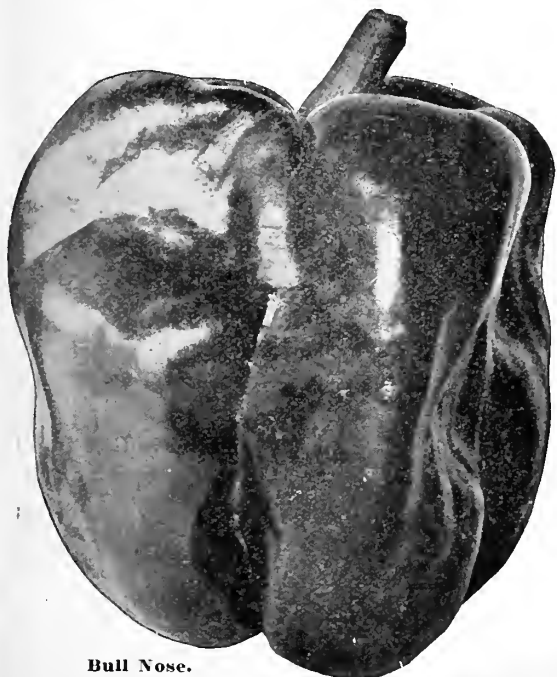
**CONNECTICUT SEED LEAF**—A hardy cigar variety, well adapted to the climate of the middle and northern states. Pkt., 10c; Oz., 25c; ¼ Lb., \$1.00; Lb., \$3.50.

**IMPROVED WHITE BURLEY**—A standard variety and a popular sort for plug fillers and wrappers. Our strain is much superior to the common White Burley, being especially selected and grown by an expert. We know it to be of the best possible quality. Pkt., 10c; Oz., 50c; ¼ Lb., \$1.50; Lb., \$5.50.

**HORSERADISH ROOTS**

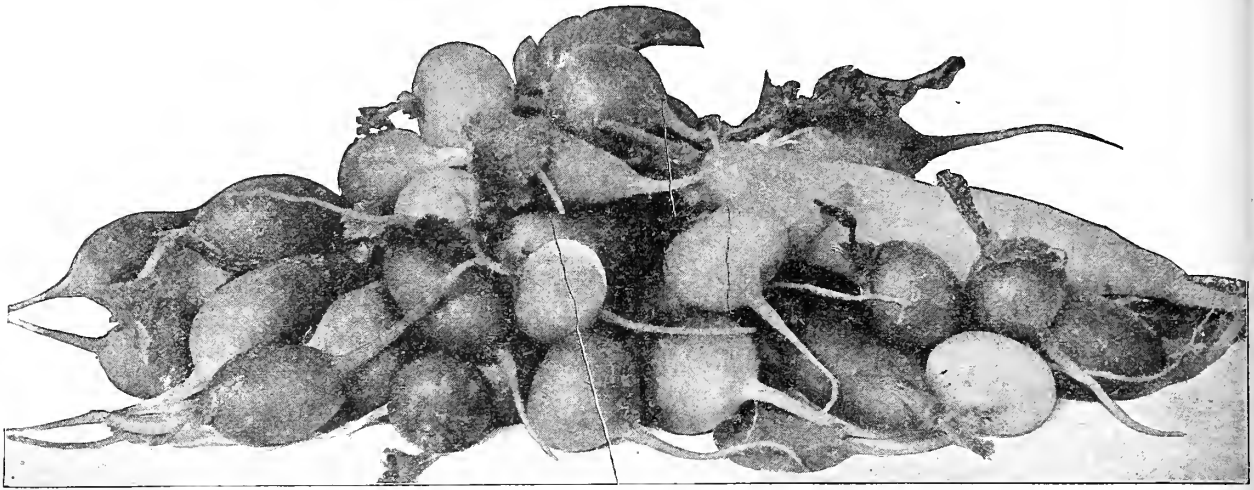
**MALINER-KREN**—A variety from Bohemia that is much more vigorous and grows much larger than the common Horseradish. Cuttings planted in April will produce fine, large cuttings the first of the following October. It is white, free from disease, yields very heavily, will grow on any kind of soil and stands dry weather well. This variety has produced four tons per acre that sold for \$100 a ton. It requires 10,000 cuttings to plant one acre. Twenty-five to fifty roots will supply an average sized family. Prices, Roots ready for planting, by mail postpaid, 6 for 15c; Doz., 25c; 50 for 75c; 100 for \$1.35. Express not paid, 500 for \$4.50; 1,000 for \$8.00.

**COMMON HORSERADISH**—Roots ready for planting, by mail postpaid, Doz., 25c; 50 for 60c; 100 for 90c. By express not paid, 500 for \$2.50; 1,000 for \$4.50.



Bull Nose.





Mixed Radishes.

## Radies **RADISH** Rabanitos

**A**LL varieties of radishes thrive best in a rich, not too heavy soil, and a sandy loam is best. For early use sow in the hotbed in February or outdoors as soon as the ground can be worked, in rows six to ten inches apart, covering the seed one-half inch deep. Thin to one inch apart in row. The summer varieties may be sown at the same time, coming on after the earlier sorts are gone. The winter varieties should not be sown until about August 1st. Sow every week or ten days for succession until hot weather comes on. One ounce of seed will plant 100 feet of drill.

Varieties marked with an asterisk (\*) are best suited for market gardeners

### EARLY OLIVE AND TURNIP SHAPED VARIETIES

**CRIMSON GIANT**—One of the best early sorts for either outdoor use or for forcing. The round, bright red roots grow to exceptionally large size before becoming pithy. Pkt., 5c; Oz., 15c; ¼ Lb., 30c; Lb., \$1.00.

**EARLY SCARLET TURNIP**—A very early, small bright red radish that is liked both by gardeners and for home use. Pkt., 5c; Oz., 10c; ¼ Lb., 20c; Lb., 60c.

**EARLIEST WHITE TURNIP**—A small early forcing variety, about one inch in diameter, twice as broad as deep. Excellent for forcing or open ground, and of good flavor. Pkt., 5c; Oz., 10c; ¼ Lb., 20c; Lb., 75c.

**\*EARLY SCARLET TURNIP, WHITE TIPPED**—A very popular early variety. Globe shaped, scarlet with white tip, fine quality. Pkt., 5c; Oz., 10c; ¼ Lb., 20c; Lb., 60c.

**EARLY WHITE BOX**—Excellent for forcing or outdoor growth. One of the very best for fall use. It makes rapid growth, but may be left until it reaches a diameter of two inches before becoming pithy. Pkt., 5c; Oz., 10c; ¼ Lb., 25c; Lb., 75c.

**\*FRENCH BREAKFAST**—An excellent early, oval shaped radish; scarlet with white tip. It gets pithy rather soon, but is fine while it lasts. Pkt., 5c; Oz., 10c; ¼ Lb., 25c; Lb., 75c.

**NON PLUS ULTRA**—An extra early turnip shaped, forcing radish. Scarlet, small tops, flesh crisp and well flavored. Pkt., 5c; Oz., 10c; ¼ Lb., 25c; Lb., 75c.

**\*VICK'S SCARLET GLOBE**—One of the very best early sorts. Adapted either to hothouse or outdoors. Stands heat better than many other varieties and it does not become pithy as soon as many other sorts. Ready for use in about 25 days. Pkt., 5c; Oz., 10c; ¼ Lb., 25c; Lb., 85c.

### EARLY LONG RADISHES

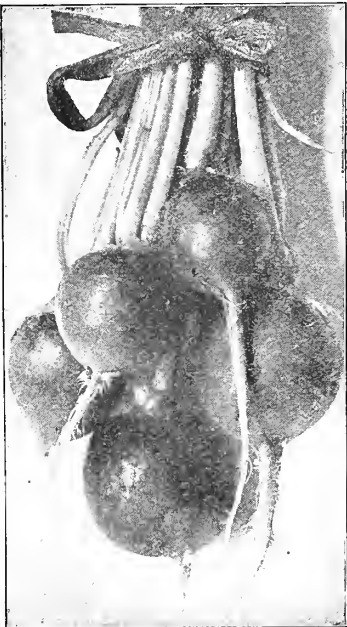
**\*LONG CINCINNATI MARKET**—A strain of Long Scarlet that grows to slightly larger size. Much used in the South for shipment. Long, straight, deep scarlet roots that are very smooth and of good quality. Tops are small, and it does not become pithy early. Pkt., 5c; Oz., 10c; ¼ Lb., 25c; Lb., 75c.

**\*EARLY LONG SCARLET SHORT TOP**—A standard sort of very attractive appearance. Long, red roots grow partly out of ground and are of the choicest quality. Pkt., 5c; Oz., 10c; ¼ Lb., 20c; Lb., 60c.

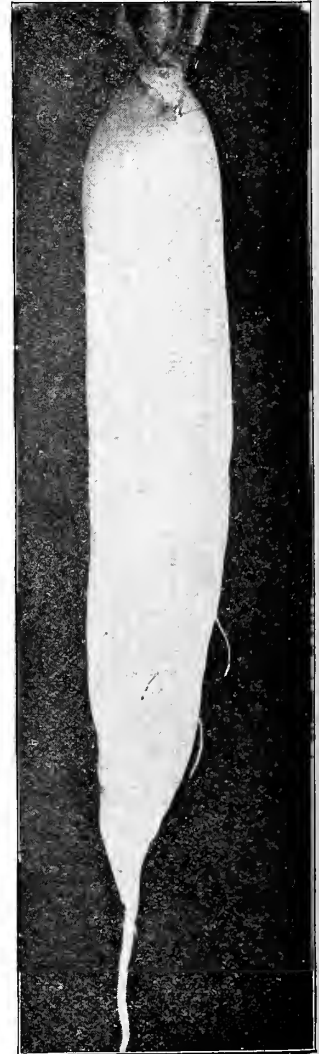
**HALF LONG DEEP SCARLET (Paris Beauty)**—A variety extensively grown in the South and good anywhere. May be used for forcing. Roots about 2½ inches long. Deep scarlet. Does not become pithy very quickly. Pkt., 5c; Oz., 10c; ¼ Lb., 25c; Lb., 75c.

**LONG WHITE ICICLE**—Deservedly the most popular of the early long white radishes. The long roots are very white in color and of the finest quality. They stay in their prime longer than any other first early sort. Excellent for forcing and a splendid sort for outdoors. Pkt., 5c; Oz., 10c; ¼ Lb., 25c; Lb., 75c.

**LONG BRIGHTEST SCARLET (Cardinal White Tipped)**—Similar to Long Scarlet but roots are shorter and even brighter in color. A very handsome radish and the quality is very good. Ready for use about twenty-five days after planting. Pkt., 5c; Oz., 10c; ¼ Lb., 25c; Lb., 75c.



Vick's Scarlet Globe.



Icicle Radish.



**\*LONG SCARLET CHARTIER (Shepherd)**—An excellent long scarlet radish for general use. Long, slender roots, bright scarlet tipped with white. They stay in their prime for a remarkably long time. A popular market gardener's sort. Pkt., 5c; Oz., 10c; ¼ Lb., 20c; Lb., 60c.

**\*LONG WHITE CHARTIER (Nonpareil)**—Developed from and very similar to Long Scarlet Chartier, excepting that it has a white tip. Pkt., 5c; Oz., 10c; ¼ Lb., 20c; Lb., 60c.

**\*LONG WHITE VIENNA (Lady Finger)**—An excellent summer variety with long white roots; medium tops; flesh crisp and tender and maturing shortly after Wood's Early Frame. Pkt., 5c; Oz., 10c; ¼ Lb., 25c; Lb., 85c.

**\*WOOD'S EARLY FRAME**—An early forcing strain of the Early Long Scarlet Short Top that is equally good for early outdoor use. It is hardy, half long, scarlet and crisp. Pkt., 5c; Oz., 10c; ¼ Lb., 20c; Lb., 60c.

**\*WHITE STRASBURG SUMMER**—One of the very best, large summer varieties. It is of somewhat larger size and thicker than Vienna. The roots remain in condition for a long time and grow to be four inches long by one to two inches in diameter. Pkt., 5c; Oz., 10c; ¼ Lb., 20c; Lb., 60c.

**\*WHITE STUTTGART SUMMER**—A very large summer radish. Top-shaped and often grows to four inches in diameter. Does not get pithy until very late and may even be stored as a winter radish. Pkt., 5c; Oz., 10c; ¼ Lb., 25c; Lb., 85c.

## WINTER RADISHES

**CALIFORNIA MAMMOTH WHITE**—A Chinese variety that is late and grows very large. The roots are usually not as mild as Celestial. White; nine to twelve inches long, three to four inches in diameter. Pkt., 5c; Oz., 10c; ¼ Lb., 20c; Lb., 65c.

**\*CELESTIAL (White Chinese)**—A fine winter sort. Roots are long, cylindrical or stump rooted; six to ten inches long, two to three and a half inches in diameter; flesh crisp, solid and mild. Pkt., 5c; Oz., 10c; ¼ Lb., 20c; Lb., 70c.

**\*LONG BLACK SPANISH**—Black skin, white flesh. Roots when mature are six to eight inches long by one and a half to three inches in diameter; flesh is solid and pungent but well flavored. A good keeper. Pkt., 5c; Oz., 10c; ¼ Lb., 20c; Lb., 60c.

**\*ROUND BLACK SPANISH**—A German favorite. Very similar to Long Black Spanish except in shape, which is round to top shaped. Skin black, flesh white and pungent; keeps well. Pkt., 5c; Oz., 10c; ¼ Lb., 20c; Lb., 60c.

**\*CHINESE ROSE (Scarlet China)**—A very handsome and distinct winter variety. Roots are cylindrical and largest at bottom end; skin an attractive rose color; flesh white, solid, crisp and pungent. Keeps well throughout the autumn and winter. Pkt., 5c; Oz., 10c; ¼ Lb., 20c; Lb., 60c.

**CHOICE MIXED RADISHES**—Many of our customers who wish to make but one sowing find this mixture suits their needs excellently. It contains all the choicest early, medium and late varieties, thus providing a succession. Pkt., 5c; Oz., 10c; ¼ Lb., 20c; Lb., 70c.

**Haferwurzel SALSIFY or OYSTER PLANT Salifi**

**T**HIS plant is used for a substitute for oysters, and we like it fully as well as the oysters themselves. It is either used in soup or scalloped with best results. Sow early in the spring on rather light, fertile ground, in drills 18 inches apart; thin the plants to 1 or 1½ inches in the row. The roots are more inclined to fork on ground heavily manured with fresh manure or on sod ground. Before the ground freezes they should be dug and stored as you would other root crops. Light freezing greatly benefits the flavor.

**MAMMOTH SANDWICH ISLAND**—An improved variety that grows nearly double the size of the old sorts. Of very good quality, uniform and of fine flavor. Pkt., 5c; Oz., 20c.

Spinat

## SPINACH

Espinaca

**T**HIS plant will grow in any ordinary soil, but responds well to fertility. Sow early in the spring in drills twelve to eighteen inches apart and thin to six inches apart in row. For early use sow in August or September, protecting the plants with a light covering of leaves or straw. One ounce of seed will sow fifty feet of drill. Sow the seeds of New Zealand in hills two feet apart each way, three or four seeds in a hill.

**BROAD FLANDERS**—Broad, bright green, arrow-shaped leaves. A standard bunching sort for gardeners. Pkt., 5c; Oz., 15c; ¼ Lb., 30c; Lb., \$1.00.

**LONG SEASON**—As its name suggests, this variety has a longer season than any other sort excepting New Zealand. The plants are rather dwarf and compact, leaves broad and very dark green and crumpled. One of the best for use during hot weather as well as for early planting. Pkt., 5c; Oz., 15c; ¼ Lb., 30c; Lb., \$1.00.

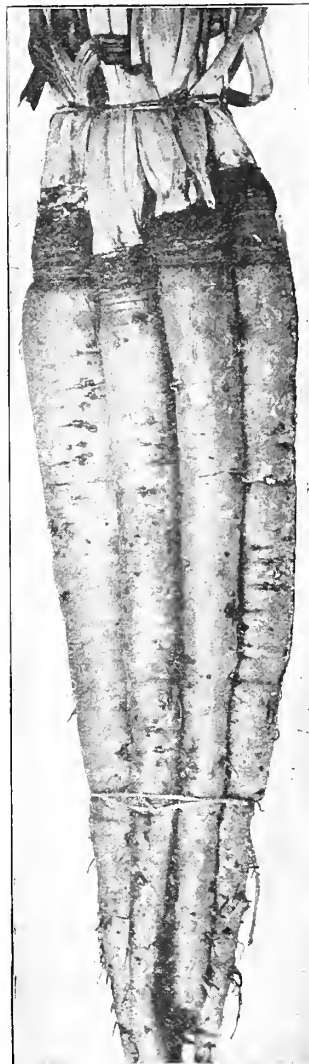
**\*LONG STANDING**—Broad, arrow-shaped, crumpled leaves. A strong grower and does not go to seed quickly. A popular market gardener's variety. Pkt., 5c; Oz., 15c; ¼ Lb., 30c; Lb., \$1.00.

**NEW ZEALAND**—Not a true spinach in type, and in that it remains green and in prime condition all summer. The plant becomes very large and spreading, but the leaves are small, thick, soft and fleshy. Pick the leaves from the stalk and you will have delicious greens up until frost. A very remarkable plant in the way it resists hot, dry weather. Pkt., 10c; Oz., 20c; ¼ Lb., 40c; Lb., \$1.50.

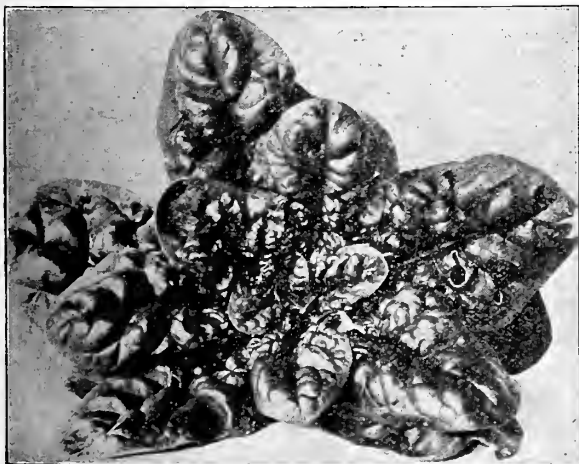
**PRICKLY or WINTER**—Especially recommended for fall sowing, although it does well if sown in the spring. The plants grow quite large and the light green leaves are medium sized, thick and fleshy. It goes to seed sooner than some other sorts. Pkt., 5c; Oz., 15c; ¼ Lb., 30c; Lb., \$1.00.

**SAVOY LEAVED or BLOODSDALE**—The leaves are very curled and crumpled. It is early and very hardy, being splendid for winter use. Much used by Southern truckers, as it is a splendid shipper. Pkt., 5c; Oz., 15c; ¼ Lb., 30c; Lb., \$1.00.

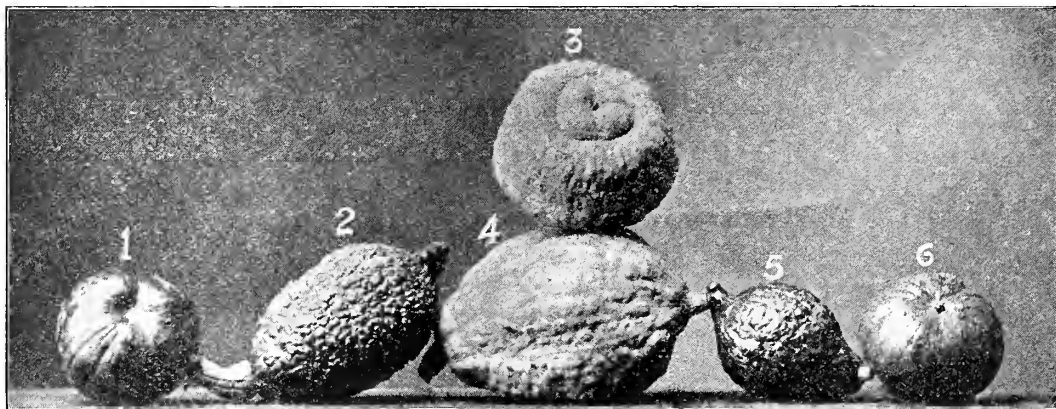
**VICTORIA**—The leaves are very dark green and of the true Savoy type. It is later than Long Standing and slow to run to seed. A splendid sort for either the home or market garden. Pkt., 5c; Oz., 15c; ¼ Lb., 30c; Lb., \$1.00.



Sandwich Island Salsify.



Long-Standing Thick-Leaved.



1—Early Sugar Pumpkin. 2—Warted Hubbard Squash. 3—Turk's Cap Squash. 4—Boston Marrow Squash. 5—Red Hubbard Squash. 6—Golden Bronze Squash.

## Speise Kurbiss **SQUASH** Calabaza

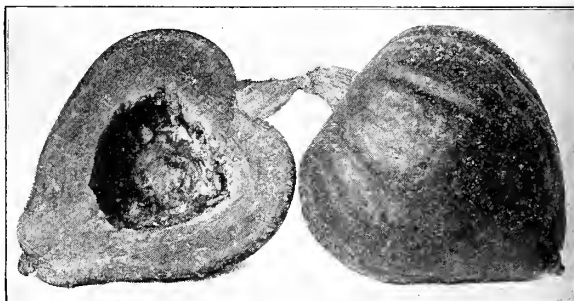
**S**QUASHES like a rich, loose soil. The culture is the same as for Melons and Cucumbers. The bush varieties should be four feet apart, the running sorts six to ten feet apart. One ounce of seed will plant fifteen to fifty hills, according to size of seed.

**BOSTON MARROW**—A moderately early, decidedly prolific variety, ten to fourteen inches in diameter, twelve to sixteen inches long, light salmon color, very thick meated, fine grained, sweet, excellent quality every way and a reasonably good keeper. Pkt, 5c; Oz, 10c;  $\frac{1}{4}$  Lb., 25c; Lb., 75c.

**DELICATA**—An early, small variety, about the size of the Fordhook, or a trifle larger, and similar shape, yellow and green mottled; productive; a good keeper; not quite as rich as Turk's Cap or Hubbard. Pkt, 5c; Oz, 10c;  $\frac{1}{4}$  Lb., 30c; Lb., 85c.

**DELICIOUS**—A moderately early, medium sized variety, about seven or eight inches in diameter, ten to fourteen inches long, dark green color, thick flesh, fine grained, sweet and very dry. A reasonably good keeper. Pkt, 5c; Oz, 10c;  $\frac{1}{4}$  Lb., 30c; Lb., \$1.00.

**ESSEX HYBRID (Turk's Cap)**—A cylindrical-shaped Squash with a large nub or "Turk's Cap" at the blossom end, seven to twelve inches in diameter, light salmon color, hard shelled, almost solid meated, very fine grained, sweet



Delicious Squash.

and of finest flavor. It is a good keeper. We consider this one of the very best varieties. Pkt, 5c; Oz, 10c;  $\frac{1}{4}$  Lb., 25c; Lb., 75c.

**FORDHOOK (Running)**—We have these both in the running and bush varieties. The running variety is a little the more uniform of the two, fruit small, about four inches in diameter and ten or twelve inches long, cream color, moderately hard shelled, fine grained and good quality. Pkt, 5c; Oz, 10c;  $\frac{1}{4}$  Lb., 30c; Lb., \$1.00.

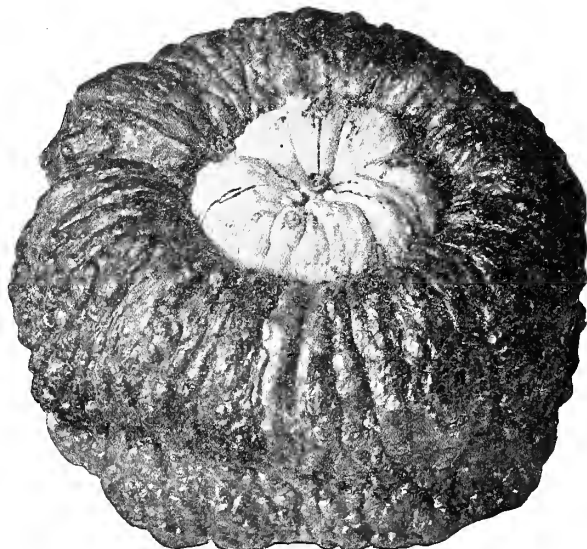
**HUBBARD**—Deservedly one of the most popular of the winter squashes. Oval shaped with both ends pointed, skin rough and dark green; shell very hard and tough; flesh thick, of bright orange color, dry, fine grained and of superior flavor. Excellent for pies as well as for baking. An excellent keeper and will often keep through the entire winter. Our strain is especially selected and very fine. Pkt, 5c; Oz, 15c,  $\frac{1}{4}$  Lb., 35c; Lb., \$1.00.

**MARBLEHEAD**—An old standard sort and one of the best; size and shape about like the original Hubbard, skin gray, shell hard, fine grained sweet and a good keeper. Pkt, 5c; Oz, 10c;  $\frac{1}{4}$  Lb., 35c; Lb., \$1.10.

**RED or GOLDEN HUBBARD**—A variety similar to the original Hubbard, but with a deep salmon colored skin and smaller in size, being six to eight inches in diameter, ten to twelve inches long, shell hard, flesh fine grained and sweet, an excellent keeper. Pkt, 5c; Oz, 10c;  $\frac{1}{4}$  Lb., 30c; Lb., \$1.00.

**WARTED HUBBARD**—A variety greatly esteemed by market gardeners, as it is one of the best sellers on market. It is larger than the original Hubbard, with larger warts. Our strain usually runs ten to fourteen inches in diameter, very productive, not quite as nice quality as the original Hubbard. Pkt, 5c; Oz, 10c,  $\frac{1}{4}$  Lb., 30c; Lb., \$1.00.

**GOLDEN BRONZE**—A medium sized variety about eight inches in diameter, blunt on the blossom end, color about like Hubbard except for a shade of bronze; flesh thick, fine grained, sweet in flavor. An excellent keeper. Pkt, 5c; Oz, 10c;  $\frac{1}{4}$  Lb., 30c; Lb., \$1.00.



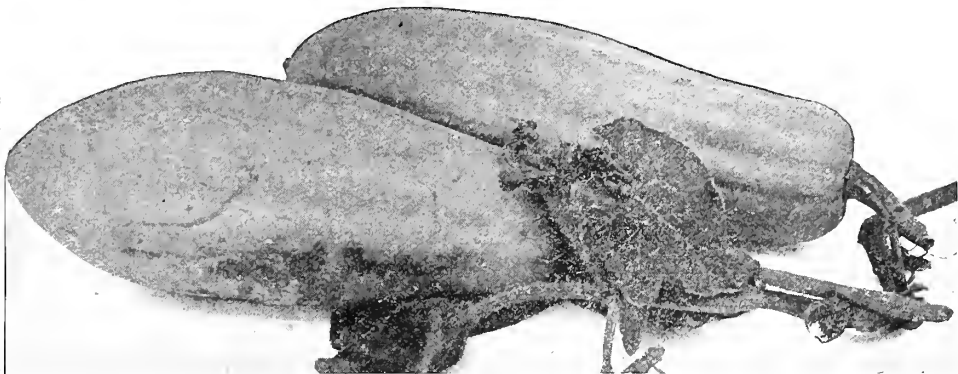
Turk's Cap.



## BUSH VARIETIES

**FORDHOOK BUSH**—The fruits of this variety are slightly smaller than those of the running Fordhook, but are a little thicker meated and of the same fine quality. One of the best of the summer squashes and also keeps fairly well. Pkt., 5c; Oz., 10c; ¼ Lb., 30c; Lb., \$1.00.

**EARLY WHITE BUSH SCALLOP**—A very early squash of true bush habit. The fruits are creamy-white, medium sized and productive. Pkt., 5c; Oz., 10c; ¼ Lb., 30c; Lb., 85c.



Fordhook Running Squash.

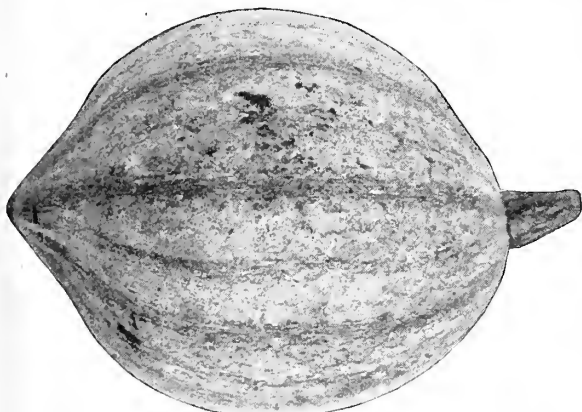
**EARLY YELLOW BUSH SCALLOP**—Very similar in growth and fruit to preceding, but the skin is a deep orange color. Pkt., 5c; Oz., 10c; ¼ Lb., 30c; Lb., 65c.

**MAMMOTH WHITE BUSH SCALLOP**—Nearly as early as the Early Scallop and much larger, frequently growing twelve to fourteen inches in diameter. A very handsome variety. Pkt., 5c; Oz., 10c; ¼ Lb., 25c; Lb., 75c.

**MAMMOTH YELLOW BUSH SCALLOP**—Very similar to Mammoth White Bush excepting that the skin is colored yellow and the flesh is creamy-yellow. Pkt., 5c; Oz., 10c; ¼ Lb., 20c; Lb., 65c.

**SUMMER CROOKNECK**—An old favorite, very early and productive. Fruit medium sized with long crooked neck, thickly warted and rich golden-yellow. Pkt., 5c; Oz., 10c; ¼ Lb., 30c; Lb., 90c.

**MAMMOTH SUMMER CROOKNECK**—The largest and one of the earliest summer crookneck squashes. Vines of true bush habit, very productive; fruit true crookneck type, rich golden-yellow, thickly warted and very handsome in appearance. Pkt., 5c; Oz., 10c; ¼ Lb., 30c; Lb., \$1.00.



Marblehead.

## Rübe **TURNIP** Nabō

**T**HE early varieties may be sown as early as the ground can be worked in the spring. For fall and main crop, the latter half of June is proper seeding time. The Ruta бага varieties should be planted in drills at least eighteen inches apart and thinned out to six inches in the row. They should be sown about June 15th. Use one to three pounds of seed per acre.

**EARLY PURPLE TOP MILAN**—The earliest flat variety, top purple, bottoms white, medium sized, flat shaped, uniform and good quality. Pkt., 5c; Oz., 10c; ¼ Lb., 30c; Lb., \$1.00.

**EXTRA EARLY WHITE MILAN**—The earliest flat white turnip, very similar to Purple Top Milan. Tops small and strap-leaved. May be planted close together. Medium size, quality very good. Pkt., 5c; Oz., 10c; ¼ Lb., 30c; Lb., \$1.00.

**EARLY SNOWBALL**—A medium sized, early variety; pure white and of good flavor. Pkt., 5c; Oz., 10c; ¼ Lb., 25c; Lb., 75c.

**EARLY WHITE FLAT DUTCH**—A standard, flat, early variety, much used in the South, good sized, pure white with small top, fine grained and sweet; grows about two and one-half inches in diameter. Pkt., 5c; Oz., 10c; ¼ Lb., 20c; Lb., 60c.

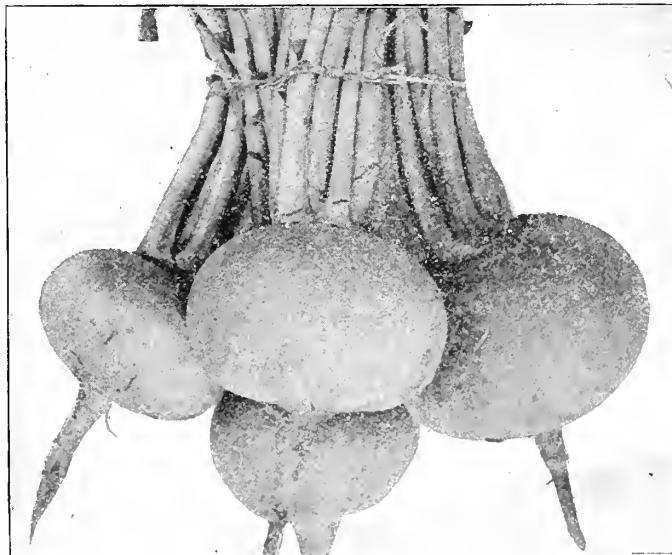
**POMERANIAN WHITE GLOBE**—A large, pure white, globe-shaped variety. Flesh firm and sweet. Suitable either for table or stock feeding. Pkt., 5c; Oz., 10c; ¼ Lb., 20c; Lb., 60c.

**PURPLE TOP WHITE GLOBE**—As indicated by its name, this variety is white under ground, purple above, flesh white, fine grained and tender; should be used when about three inches in diameter. Keeps well and good for market use. Pkt., 5c; Oz., 10c; ¼ Lb., 20c; Lb., 60c.

**PURPLE TOP STRAP LEAVED**—An old standard variety of splendid merit and probably more widely used than any other. Early, with upright strap leaves; roots are flat, medium sized, purple above ground and white below. Flesh is white, fine grained and tender. Should be used at about two and a half inches for table, but grows much larger for stock feeding. Pkt., 5c; Oz., 10c; ¼ Lb., 20c; Lb., 60c.

**SEVEN TOP**—A variety used for greens. Pkt., 5c; Oz., 10c; ¼ Lb., 20c; Lb., 50c.

**WHITE EGG**—A quick growing, egg shaped variety. Tops small; roots smooth and white, flesh firm, fine grained and sweet. Should be used when roots are two inches in diameter. Pkt., 5c; Oz., 10c; ¼ Lb., 20c; Lb., 60c.



Early Snowball.

**COW HORN OR LONG WHITE**—A variety used somewhat for stock feeding and more for plowing under. The roots average perhaps two inches in diameter and twelve to fifteen inches long. Turnips make potash soluble in the soil, gathering it into their roots. A crop of turnips left to decay in the ground not only helps the succeeding crop with potash, but humus, and some of our customers report an increase in yield of oats following turnips of as high as ten bushels per acre. Pkt., 5c; Oz., 10c; ¼ Lb., 20c; Lb., 50c. Express not paid—10 Lbs., 45c per Lb.

## YELLOW-FLESHED VARIETIES

**YELLOW ABERDEEN**—One of the best yellow varieties, suitable for both table and stock feeding. Pkt., 5c; Oz., 10c; ¼ Lb., 20c; Lb., 60c.

**GOLDEN BALL or ORANGE JELLY**—Recommended as the best yellow sort for table use, a good keeper, yellow, globe-shaped, early and rapid grower. Pkt., 5c; Oz., 10c; ¼ Lb., 20c; Lb., 60c.

**YELLOW STONE**—One of the best yellow varieties. Quite early, round, but somewhat flattened, very good

Our yellow turnips are drier, more like a potato, than the white varieties. They look fine when cooked and have an excellent flavor. quality. Good for the table or for stock. Pkt., 5c; Oz., 10c; ¼ Lb., 20c; Lb., 60c.

**YELLOW GLOBE or AMBER**—A large sweet variety that is recommended for either table or stock. Pkt., 5c; Oz., 10c; ¼ Lb., 20c; Lb., 60c.

**GOLDEN YELLOW**—A moderately early, medium sized variety, with a brownish-yellow skin. Very crisp and sweet. Pkt., 5c; Oz., 15c; ¼ Lb., 30c; Lb., \$1.00.

## RUTA BAGA

**IMPROVED AMERICAN PURPLE TOP**—An improved American strain of Purple Top Yellow Ruta Baga. Roots yellow below ground and purple above, large, globular, and with short neck; flesh yellow and sweet. Pkt., 5c; Oz., 10c; ¼ Lb., 20c; Lb., 50c.

**LAING'S PURPLE TOP**—One of the earliest varieties and attains good size. Small, strap-leaved tops, necks small; skin purple above, yellow below; flesh yellow and of good quality. Used either for table or for feeding. Pkt., 5c; Oz., 10c; ¼ Lb., 20c; Lb., 60c.

**CARTER'S IMPROVED PURPLE TOP**—Excellent for the table or for stock feeding. Nearly round, skin yellow with purple top; flesh yellow and solid. Hardy and a heavy yielder. Pkt., 5c; Oz., 10c; ¼ Lb., 20c; Lb., 60c.

**KELWAY'S PERFECT MODEL**—(New.) This is probably the most perfectly formed Ruta Baga on the market, and also one of the largest and best quality, being largely used in England as a table variety. Individual roots sometimes weigh sixteen pounds and are splendid

for feeding purposes. Pkt., 10c; Oz., 15c; ¼ Lb., 30c; Lb., \$1.00.

**MONARCH TANKARD or ELEPHANT**—Originated in England by Carter, and very highly prized there. Large tankard-shaped roots with small necks and tops, dark red above ground and yellow below. Flesh is a deep yellow and fine grained. A very heavy yielder. Pkt., 5c; Oz., 10c; ¼ Lb., 20c; Lb., 60c.

**SKIRVING'S KING OF SWEDEN**—A standard variety for table use or for feeding. The roots are large, oval, with purple tops and yellow flesh. The quality is excellent. Pkt., 5c; Oz., 10c; ¼ Lb., 20c; Lb., 60c.

**WHITE SWEDE or SWEET RUSSIAN**—A very large white variety that is very desirable because of its keeping qualities. Tops small and strap-leaved; roots large, nearly globe-shaped and with small neck; skin greenish-white; flesh white, solid and very sweet. Splendid either for table or for feeding. Pkt., 5c; Oz., 10c; ¼ Lb., 20c; Lb., 60c.

## Liebesapfel TOMATO Tomato

**TOMATOES** can be grown on almost any soil but do best on a light, warm, not over-rich soil. Their success depends largely on their getting favorable growing conditions throughout the early part of the season so that they may make a steady, rapid growth. Sow in hotbed six or eight weeks before time to set outdoors. Fruit may be had much earlier by sowing two or three weeks earlier and transplanting to small pots. The plants are usually set four feet apart each way, and it is best to stake them when they get about three feet high. The dwarf or tree tomatoes may be planted closer together and need no support. One ounce of seed will produce about 2,000 to 3,000 plants and two ounces will plant an acre.

Central Ohio is recognized as one of the best tomato growing districts in the world. Columbus is naturally the center of this district, and for years great interest has been shown in the Tomato Show at the Ohio State Fair. Only once have we entered any exhibits in this show, as we prefer not to compete against our own customers. In 1915 we won First Premium on Display of Tomatoes, this being the only class in which we made any entries.

**WING'S RED SUNRISE TOMATO**—For years we worked to get a variety as early as the Earliana, but one having greater quality than that variety. Last year for the first time we offered Wing's Red Sunrise as a decided improvement over the Earliana. We believe that on an average the Sunrise will always ripen its first fruit the same day that the Earliana does, that the end of the season will show a 30 per cent. greater yield of perfect tomatoes, and a somewhat greater total yield. Also the week of heaviest picking with the Sunrise is at least seven days earlier than that of Earliana. Finally, the Sunrise cuts almost perfect for an early tomato. The skin is thin, but fairly tough, the meat is very solid and there is very little seed cell space. For slicing it has no equal among the early varieties. Vines are of medium height and vigorous; foliage fine and heat resistant. Pkt., 10c; Oz., 35c; ¼ Lb., \$1.00; Lb., \$3.00.

**ACME**—A popular variety with gardeners for shipping or home markets. Good also for home use. Midseason, round, pink, medium sized and attractive. Pkt., 5c; Oz., 20c; ¼ Lb., 70c; Lb., \$2.25.

**BEAUTY**—One of the best purple varieties for midseason table use. Vines vigorous and productive; fruit large, solid and smooth. Pkt., 5c; Oz., 25c; ¼ Lb., 75c; Lb., \$2.50.

**BONNY BEST**—An excellent early scarlet tomato for home use or for the market. Vines very vigorous; fruit medium, uniform, smooth and fairly meaty. A splendid forcing variety. Pkt., 5c; Oz., 25c; ¼ Lb., 80c; Lb., \$2.75.

**BUCKEYE STATE**—One of the largest smooth purple varieties. It is much smoother than most large sorts, yields well, and is very attractive looking. It sells well and our strain cuts nicely. Pkt., 5c; Oz., 20c; ¼ Lb., 75c; Lb., \$2.60.

**CHALK'S EARLY JEWEL**—About ten days later than Earliana, a good yielder, color scarlet, smooth, with much better core than Earliana. Our strain of this tomato is of the very best. Pkt., 5c; Oz., 25c; ¼ Lb., 80c; Lb., \$2.75.

**COMET**—A rather small, scarlet tomato that is excellent for canning whole. The vines are vigorous; fruit borne in large clusters, round, very smooth and uniform in size and shape. They are borne in great abundance, in fact being one of the heaviest yielders in our plot. Pkt., 5c; Oz., 25c; ¼ Lb., 80c; Lb., \$2.75.

**CORELESS**—A large scarlet, globe-shaped tomato that is excellent for canning. Vines are strong growing; fruit large, smooth and solid. Matures late and is excellent for slicing as well as canning. A good yielder. Pkt., 5c; Oz., 25c; ¼ Lb., 80c; Lb., \$2.75.

**EARLIANA**—This variety has for years been absolutely indispensable. It is ten days earlier than nearly all other sorts. It yields very well, fruit is reasonably smooth and good flavored. Our strain of this tomato is the very best obtainable. Pkt., 5c; Oz., 25c; ¼ Lb., 80c; Lb., \$2.75.



Wing's Red Sunrise.



**DWARF GIANT**— Sometimes called "Dwarf Ponderosa" on account of its large size. It is the largest of the tree tomatoes, ribbed, but smoother than Ponderosa. Purple, very meaty and of fine flavor. Pkt., 10c; Oz., 35c; ¼ Lb., \$1.00; Lb., \$3.75.

**ENORMOUS**—An extra large scarlet tomato that cuts almost as well as Ponderosa but is smoother. Yields well, and is a splendid variety for the home garden. Pkt., 10c; Oz., 30c; ¼ Lb., 85c; Lb., \$3.00.

**FAVORITE**—A large scarlet variety that is used for canning as well as in the home garden. A heavy yielder; smooth and cuts well. Pkt., 10c; Oz., 30c; ¼ Lb., 85c; Lb., \$3.00.

**GOLDEN QUEEN**—A splendid yellow variety of medium size, quite smooth, uniform; cuts fine and is a good yielder. Very handsome sliced with red tomatoes. Pkt., 10c; Oz., 30c; ¼ Lb., 85c; Lb., \$3.00.

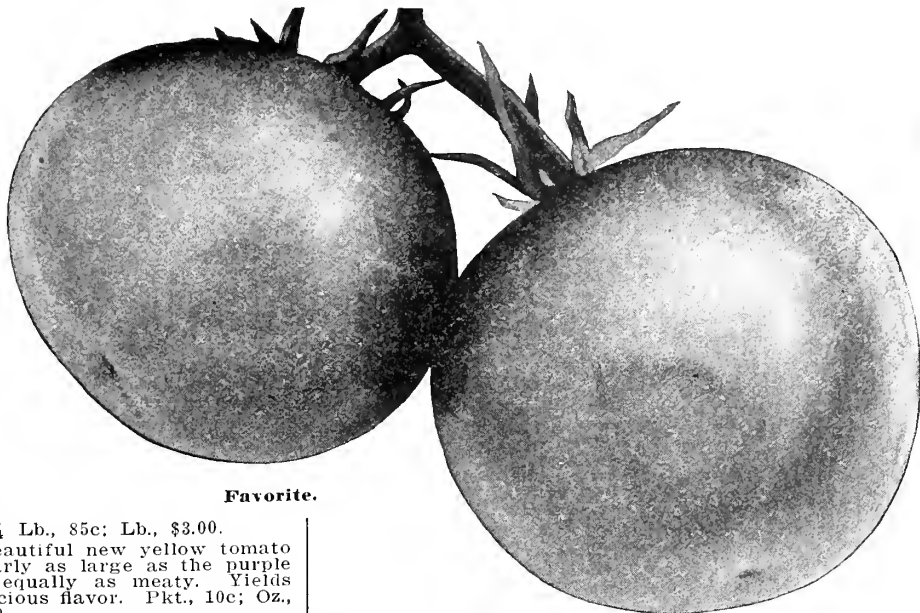
**GOLDEN PONDEROSA**—A beautiful new yellow tomato for the home garden. Nearly as large as the purple Ponderosa, smoother and equally as meaty. Yields very heavily and is of delicious flavor. Pkt., 10c; Oz., 35c; ¼ Lb., \$1.20; Lb., \$5.00.

**IMPERIAL**—A purple variety, very smooth, medium size, reasonably heavy yielding and of very good quality. We consider this tomato good enough for very critical trade. Pkt., 5c; Oz., 10c; ¼ Lb., 60c; Lb., \$2.00.

**JOHN BAER**—A very good new second early, scarlet tomato. The vines are quite tall and vigorous; fruit nearly globe-shaped, medium sized, very smooth and uniform, of a bright scarlet color; walls are thick, seed cells small, very meaty and with no cores. It is just a little later than Earliana and the yield is very much heavier. The fruits also are markedly smoother, more uniform and of finer quality. As this variety has now been tested for several seasons we have no hesitancy in recommending it to our customers. Pkt., 10c; Oz., 35c; ¼ Lb., \$1.00; Lb., \$3.75.

**JUNE PINK**—A valuable sort for gardeners whose markets demand a purple, early tomato. It ripens nearly as early as Earliana, is very prolific, smooth, even, and of splendid quality. Equally good for the home garden. Pkt., 10c; Oz., 25c; ¼ Lb., 80c; Lb., \$3.00.

**MAGNUS**—A medium early, large fruited, purple variety that is excellent either for market or the home garden. The vines are vigorous and have potato foliage; fruit globe-shaped, large, smooth and of fine quality. Yields very heavily. Pkt., 10c; Oz., 25c; ¼ Lb., 80c; Lb., \$2.75.



Favorite.

**MATCHLESS**—A favorite main crop variety, medium large, smooth, free from cracks, bright red color and a good keeper. Pkt., 5c; Oz., 30c; ¼ Lb., 85c; Lb., \$3.00.

**PERFECTION**—A crimson variety, medium sized, rather globe-shaped, of excellent quality, and one that cuts above average; a good canner or shipper. Pkt., 5c; Oz., 20c; ¼ Lb., 70c; Lb., \$2.25.

**PONDEROSA**—This is about the largest fruited variety in our trial grounds; fruit somewhat oblong in form, deep through, ribbed or ridged, purple color. This variety has perhaps the smallest seed cells and the firmest flesh of anything in our grounds. We have used it for years as a slicing variety for the table and could hardly do without it. It is not a good variety for market gardeners or shipping. Pkt., 10c; ½ Oz., 20c; Oz., 35c; ¼ Lb., \$1.10; Lb., \$4.00.

**STONE**—Largely grown for main crop and almost exclusively used by canning factories. Large fruit, bright red, solid and meaty enough for slicing. Yields very heavily and uniformly. Pkt., 5c; Oz., 30c; ¼ Lb., 80c; Lb., \$3.00.

**TRUCKER'S FAVORITE**—A very choice, large fruited purple tomato, yielding for us one of six best, the fruit smooth, without cracks and cutting exceptionally well. We can thoroughly recommend this variety. Pkt., 5c; Oz., 25c; ¼ Lb., 80c; Lb., \$2.75.



Beauty.



**DWARF CHAMPION**—A very early purple fruited tomato of true dwarf or "tree" habit. The dwarf varieties do not yield quite so heavily, but are economical of space and do not run to vine on rich ground as some of the larger sorts will. Fruits are smooth, of good quality, and are borne abundantly. Pkt., 5c; Oz., 30c; ¼ Lb., 85c; Lb., \$3.00.

**GLOBE**—A large purple, globe-shaped tomato that is very largely used for shipping, especially in the South. It is a prolific variety and of very fine quality. Much used for forcing. Pkt., 5c; Oz., 25c; ¼ Lb., 85c; Lb., \$3.00.

**DWARF STONE**—Similar to Dwarf Champion, but with more vigorous vines and larger fruit of bright scarlet color. Late, of good quality and productive. Pkt., 10c; Oz., 25c; ¼ Lb., 80c; Lb., \$3.00.

## SMALL FRUITED SORTS

**RED PEACH**—Resembles a small peach. Skin covered with a slight bloom or pubescence. Used for preserving or table decoration. Pkt., 10c; ½ Oz., 20c; Oz., 35c.

**YELLOW PEACH**—Identical with above except in color. Pkt., 10c; ½ Oz., 20c; Oz., 35c.

**RED PEAR**—Pear-shaped. Used in preserves or for "Tomato Figs." Pkt., 5c; ½ Oz., 20c; Oz., 35c.

**YELLOW PEAR**—Same as above except in color. Pkt., 5c; ½ Oz., 20c; Oz., 35c.

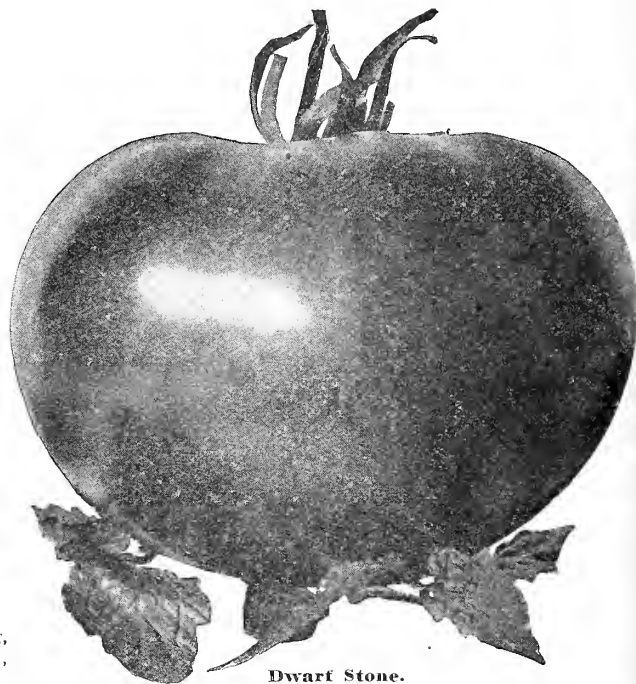
**YELLOW PLUM**—Fruit bright yellow, two inches long, an inch in diameter. Fleshy and fine flavored. Pkt., 5c; ½ Oz., 20c; Oz., 35c.

**RED CHERRY**—Small scarlet fruits borne in clusters. Pkt., 5c; ½ Oz., 20c; Oz., 35c.

**YELLOW CHERRY**—Same as above but yellow. Pkt., 5c; ½ Oz., 20c; Oz., 35c.

**RED CURRANT**—Decidedly ornamental, resembling long branches of currants. Pkt., 5c; ½ Oz., 20c; Oz., 35c.

**STRAWBERRY or HUSK TOMATO**—Plants of low spreading growth, fruit enclosed in a husk, sweet flavored; used for preserving or pies. Pkt., 5c; ½ Oz., 15c; Oz., 25c.



Dwarf Stone.

## RHUBARB

Rhubarb requires a rich, deeply cultivated soil. Sow early in spring in rows one foot apart, covering one inch. Thin to six inches. The second fall after sowing, transplant, setting two feet apart and two feet deep. One ounce of seed will produce 500 plants.

**VICTORIA**—The most popular variety, fine for family use and market. Comes quite true from seed. Pkt., 5c; Oz., 10c; ¼ Lb., 30c; Lb., \$1.00.

**RHUBARB ROOTS**—Sent by express at buyer's expense. 25c and 50c each according to size of clump.



Globe.



# FIELD SEED DEPARTMENT

## ALFALFA

By CHAS. B. WING.

**I**MPORTANT THINGS almost always seem to start with some little incident not apparently important of itself. Over twenty-five years ago our Mr. Joseph E. Wing was compelled to go to the great ranches of the West in order to develop more robust health. He stayed there a year or so, securing the strength that he needed, and then returned to Ohio. The important part of the whole matter was that he brought back with him a love for the Alfalfa plant, that he undertook to grow it on our old farm, and that his first attempt was a complete success. In a few years we were growing several acres of it, and after finding that it grew readily and that our stock loved it dearly, Joe began writing for the farm papers, advising everybody else to go and do likewise.

This happened early in the nineties. Times were desperately hard. Had my father not left several thousand dollars of money out at interest, I scarcely know how we could have lived during those years from the very meager receipts from the farm.

I remember that we bought a neighbor's corn for 18 cents per bushel; the market advanced to 20 cents, and he refused to fill his contract, whereat both of us were aggrieved. Another neighbor sold us his corn at 22 cents; the market advanced to 24 cents, and then he refused to fill the contract. These things seem amusing now, but they were far from amusing at that time.

We sold no Alfalfa hay. In fact, we did not usually have enough hay for our own consumption, but we thought the Alfalfa paid because it yielded well and our stock thrived on it so much better than on the Timothy and Clover which we had formerly used.

I well remember that when we first had forty acres of Alfalfa seeded down, I told our Mother that I believed times would get better for us now, that it was pretty hard to live off the income of the farm, but that I hoped this Alfalfa was going to benefit us. None of us ever dreamed how greatly it would benefit not only ourselves, but the other farmers throughout the Corn Belt who were to follow in our footsteps and grow this great legume.

About the same time that we began growing Alfalfa, we began feeding the hay to western lambs. First we fed, I think, about a hundred and fifty; about the next year, two hundred, then three hundred, five hundred, seven hundred and so on to our present capacity. The increase was moderate in the beginning, but followed quite rapidly, and after we reached about five hundred head, the fertility of our place was increasing almost by leaps and bounds.

We did not get much of a start with Alfalfa until probably 1893 or '94, but by 1900 we were growing seventy-five or a hundred acres, and since that time we have never had less than a hundred and sometimes we have between three and four hundred.

About 1894, probably, Joe began strongly urging other farmers to grow the plant, and largely through his efforts it has become established throughout the states east of the Missouri River. There is nowhere nearly as much of it grown even today as there should be, but sufficient progress has been made so that the farmers themselves are doing



Alfalfa in our Trial Grounds. We have 70 strains growing side by side for purpose of comparison.

vast amounts of boosting for it. They thoroughly understand how to grow it, and it has assumed great importance as one of our leading crops.

I have mentioned our own success with it, not at all as a boast, but simply to encourage some other farmer who is hesitating whether or not to change his methods and try Alfalfa.

The vast majority of my readers know already the advantages of this crop, but for the benefit of the few who do not know, let me state a few indisputable facts.

In the first place, Alfalfa is unquestionably the most nutritious and the most palatable forage plant grown in North America today. In its chemical analysis it is fully equal to wheat bran. In Experiment Station tests it has actually been shown to feed as well as wheat bran, a pound of Alfalfa displacing a pound of bran with (if any difference) better results. Dairy cows thrive on it as on no other feed. Cattle fatten on it better than on any other forage; horses will retain their flesh on it with a smaller allowance of grain than with any other feed; nothing will take its place with sheep, either as a maintenance ration or for fattening purposes, and even for poultry, there is nothing else so good. Brood sows will stand up to a self-feeder of it all winter and thrive as on nothing else that can be given them. Fattening hogs put on gain faster and cheaper when given an Alfalfa pasture supplemented by corn than with any other combination known.

In the second place its great roots penetrating, under favorable conditions, for ten, fifteen or twenty feet, bring up both nourishment and moisture from depths in the soil that no other crop we grow could possibly touch. In times of drought the Alfalfa fields are the only green thing the eye can find.

In the third place, in seasons like 1915, when we have constant deluges of rain, your small grain will be growing vigorously in the shock in spite of anything you can do; your Clover will be absolutely ruined, and your Timothy or mixed hay practically spoiled, while your Alfalfa hay, if you have paid any attention to it at all, will be worth 50, 75, perhaps even 80 or 90 per cent. of its original value. In other words, it will stand vastly more punishment from rain than will any other form of hay and vastly more than any of the small grains will. In a year like 1915, when it

seemed as though you were going to lose your entire crop from rain, the Alfalfa is the one thing that you can count upon saving.

Some of our friends, the Orchardists, are finding Alfalfa invaluable as a cover crop in their orchards. Not only does it produce some of the highest class forage for them, but by shading the ground it helps to conserve the moisture, while its bacteria are constantly adding nitrogen to the soil for the benefit of the trees. Finally, in some places, mice are so troublesome in orchards that a spring tooth harrow is required for preventing their activities. Alfalfa is one of our few plants which thrives all the better for being occasionally stirred up with the spring tooth harrow.

Last, but not least, while it is giving us bountiful crops, say four tons of hay per acre, worth, if compared with wheat bran, \$25.00 per ton, it is actually bringing up the fertility of the soil. The biggest corn crop you ever grow follows an Alfalfa sod.

For years one of the biggest bugaboos about Alfalfa has been men's idea that the plant is remarkably difficult to grow. How this idea started would be difficult to say, but it is anything but the truth. Given only a reasonably well drained limestone soil and Alfalfa will almost grow like weeds without any remarkable preparation whatever. One of our best friends recently criticized our own labors by saying that we ourselves, in putting out very explicit, careful rules for the growth of Alfalfa, had fostered the hallucination that it was difficult to grow and that it was necessary to follow the most intricate and difficult rules minutely in order to succeed. If we have ever given this impression, we wish to apologize for it. Alfalfa is not difficult to grow. It is succeeding in our own neighborhood, we believe, fully twice as easily as is the growth of Medium Clover, but we do say that Alfalfa is a rather peculiar plant, that its requirements, while few, are vitally important to it, and we give very explicit directions for growing simply to do away with the old theory that it was difficult to grow or could not be grown in a given neighborhood. Alfalfa can be grown in every county or township in the United States where land can be drained to a depth of three feet.

There are many methods whereby men can succeed in growing it. After twenty-five years of work with it, work including its growth in large areas on our farms as well as much time and effort spent in purely experimental work, we have demonstrated to our own satisfaction the best cultural methods for it. These methods we give carefully and in detail, not because it is difficult to grow, but simply in order to cover every possible contingency in all the vast area east of the Missouri River, and to make things so plain and easy that not one of our customers can fail if he follows these instructions.

**Requirements** The requirements of Alfalfa are few and are easily explained. They are lime, inoculation, drainage, proper fertilizers, proper seed and proper method of seeding.

**Lime** Among the great things which our Mr. Joseph E. Wing accomplished in his lifetime, that of placing lime in its proper importance throughout the Corn Belt should in my opinion be placed second only to his starting the Alfalfa itself.

For many years farmers in certain counties of this as well as adjoining states were succeeding admirably with Alfalfa, while farmers in other counties were miserably failing. No one seemed to know the reason for this, and we ourselves thought probably there were Alfalfa belts where the plant would thrive and others where it was foolish to undertake its growth.

Finally, perhaps twelve years ago, my brother happened on to the cause of these failures in certain places. It was lack of lime, or at least that was the principal cause. Since that time we have talked lime, until we believe today, owing to Wing teachings more than any other one thing, there is ten times as much interest being taken in lime as there was six years ago, and our greatest soil experts say that the

end is not yet, that we are exactly on the right track, and that not only the Alfalfa, but many of our other crops are being vastly improved by the use of lime.

There seems little question that Clover sickness is in many cases due to lack of sufficient lime, and it would seem very probable that within ten years from now nine-tenth of the farmers living east of the Missouri River will be using lime, at least to a moderate extent, not only on their Alfalfa, but on many other crops. I asked Director Thorne, of our own great Experiment Station, one day if this were not his opinion, and he replied in effect that it was. We have no greater soil expert than Director Thorne, and his words are well worth heeding.

Why do we need lime so badly? The reason is so vital that it is well worth taking a little time to explain. The great majority of you already know a good deal about the minute organisms of the soil called bacteria. You know that these live on the roots of the legumes, that they draw nitrogen from the air and feed it to the legume itself. This constant accumulation of nitrogen is going on continually with all of our legume crops provided that these little bacteria are present. If it were not so, the life on this earth would soon perish.

Most of you know that the bacteria perish in sour ground, and all of you know that lime sweetens the ground. In addition to performing this great work, lime exerts another beneficial purpose of only a trifle less importance; it makes the soil more mellow, and, in some cases at least, it will help you to utilize the elements of fertility that are already existing in the soil. The most important thing, however, is that it sweetens the soil, making it a proper habitat for these tiny bacteria. If the soil is acid, moreover, it becomes the proper home for injurious bacteria. These thrive in cold, soggy, sour lands, and they are a injurious in such soils as the good bacteria are beneficial in sweet soils.

You will thus see that lime is one of the master keys to agriculture. Its importance cannot be overestimated. Without it legumes fail. Without legumes our nitrogen is quickly used up, and its restoration, unless done by the legumes, is more expensive than civilization can possibly stand.

**Where Lime is Needed** I will very freely admit that there are many places throughout the Corn Belt where the application of lime is at present entirely unnecessary; many other places where light applications will be amply sufficient. On the original portion of our own farm chemical analysis shows the lime content to be naturally ideal. It has never been necessary to apply any lime whatever, and it may never become necessary on this soil, especially if we used deep-rooted crops like Alfalfa, which can penetrate deeply into the subsoil drawing up some of their store of lime from this source, but on the other hand there is, in my opinion, not a single state east of the Missouri River in which you cannot find certain counties that do require lime. It is probable that the more fertile portions of Missouri, Iowa, Indiana, Illinois and western Ohio require it less than other states east of the Missouri River.

Wherever Clover fails to thrive you should investigate to see whether your lime content is right or not. Wherever Alfalfa turns sick and yellow during the middle of the summer, you may feel reasonably sure that you lack lime. It is a simple and inexpensive thing to determine with a moderate degree of accuracy whether lime is needed or not. Ten cents' worth of sensitive blue litmus paper will give you a fair idea of the condition of your farm. Make little moist balls of earth, insert a strip of the paper and let it stand for half an hour, and if it has turned pink, you certainly need lime.

A second test is also useful. A few cents' worth of muriatic acid poured on the soil should bubble if it comes into contact with any lime. If you want a still more accurate demonstration, have a sample of your soil analyzed to determine the lime content.



**Forms of Lime** There are several forms of lime in use today—the fresh burned or caustic lime, hydrated lime, air-slaked lime and ground limestone rock. For some years there has been considerable discussion as to which is the best form to apply. It seems to me that this discussion has been amply settled by the Pennsylvania Experiment Station, which conducted the longest time set of experiments along this line ever undertaken in the United States, the test running, if I remember right, for over thirty years. They found that caustic lime annually burned up and destroyed seven dollars' worth of humus per acre. That is equal to a reasonably good application of manure, and certainly none of us can afford to destroy humus at this rate. In my opinion, caustic lime deserves no place whatever on the farm when used as an application to the land.

While caustic lime directly attacks humus in the soil, liberating ammonia, which is thereby lost, the action of carbonate of lime is directly the reverse. Carbonate of lime contains approximately forty-four per cent. of carbonic acid. Applied to the soil the material slowly decomposes, the carbonic acid is liberated, this of itself being a useful chemical reaction. In fact the decomposition of this material in the soil tends to liberate insoluble potash, phosphorus, etc., this reflex action being probably of secondary importance only to the sweetening of the soil from the action of this material. We obtain calcium carbonate in the form of ground limestone rock, ground oyster shells, marl, and sometimes from spring water sediment. Any of these forms can be highly recommended. Hydrated lime is caustic lime to which about twenty-five per cent. of water has been added. In buying it you are paying freight on this water. Authorities differ as to its value, but the preponderance of opinion seems to be that hydrated lime is capable of some injury on account of being still caustic to quite an extent. When caustic lime is exposed to the air, it absorbs carbon dioxide and becomes in time chemically identical with calcium carbonate. This process requires probably one year's time, during which the material should be spread out thinly, not heaped up too much. Caustic lime is dangerous to apply to any growing crop. Its contact with live plants frequently causes their death. Calcium carbonate on the other hand may be applied at any time of the year to any crop, and nothing but beneficial results may be expected. Where soils are known to be acid, from four to ten tons per acre of calcium carbonate should be applied.

Where the acidity is only suspected or is known to be very mild, somewhat lighter applications may be used. There are places in Ohio as well as other states where calcium carbonate may be purchased for \$1.25 to \$1.50 per ton at the mills. It is advisable to have it finely ground, but occasionally coarser material, known as screenings, ranging from the size of sand to that of peas, can be obtained for 25c to 75c per ton, say, and in this case it is sometimes advisable to use these coarser screenings, and more of them in preference to paying more for the finely ground material. There are other places where calcium carbonate in any form will cost five or six dollars per ton. In these places we advise purchasing the caustic, which can usually be bought at about the same price, or perhaps at \$7.00 or \$8.00, and giving it a year's time in which to air-slake and become suitable for use on farm land.

If one is preparing to seed Alfalfa, in my opinion, the best time to apply the lime is before seeding. If he knows his ground to be sour, I would apply the lime three or four months before seeding. This will give it time to sweeten the soil before the seed is sown.

There are many makes of lime distributors today. The best one that we know of is made by The American Seeding-Machine Co., of Springfield, Ohio.

Where one has limestone on his own place and is not close to a manufacturer, I think in many cases it will pay to own grinding machinery. This machinery will grind the rock at a cost, I think, of about 50 cents per ton. Such machines can now be purchased for not over \$650.00, not a

large enough investment to deter one from purchasing. The best machine that I know of is manufactured by The Jeffrey Manufacturing Co., of Columbus, Ohio.

**Inoculation** Inoculation with Alfalfa usually pays. I do not say that it is always necessary, because on the original part of our own farm, we have never inoculated and have always succeeded. On land which we have purchased, however, it has been absolutely necessary to inoculate, and the importance of the matter has been impressed upon us by watching our neighbors' efforts throughout a period of many years.

Fifteen years ago our neighborhood rather got the Alfalfa fever. Hundreds of acres were seeded, mostly in small areas, and most of these lived. However, in most cases part of the field would be good and part would be yellow. Usually the yellow part moped along for about a year and then got better. These same meadows, after being mown for probably four or five years, were plowed up and have very largely been reseeded now. I have watched this second seeding with much interest because there has been scarcely a case where any yellow spots appeared. The entire meadow was vigorous and thrifty, and in my opinion, has made double the yield this second time that it did the first year it was seeded down. This result has almost certainly been the direct accomplishment of the inoculation, as there has been no special treatment or fertilizer, not even lime, applied during the intervening years.

There are two pretty well known methods of inoculation, that of soil transfer and that of artificial cultures. In the course of the year a thousand men ask us which is the better.

We do not know. We have used both methods and think both of them good. We have made a very serious effort to determine which is the best and most reliable form of artificial cultures being manufactured today, and from everything which we can learn, Nitragin, which we have been handling now for some years, is the best of these. This year its price has been so reduced that it is cheaper, in our opinion, quite a little cheaper, than soil transfer, unless you can get soil from very close to home. If you have fields of your own from which you can obtain inoculated soil, we think you need not hesitate to do this. Soil from around Sweet Clover plants will inoculate Alfalfa just as well as soil from around Alfalfa plants. For many years we have sold inoculated Alfalfa soil. Now, however, the artificial cultures are so cheap, and we believe so reliable, that we have this year discontinued selling inoculated soil.

**Drainage** Alfalfa, at least of the common variety, will not succeed on land that is not drained three feet deep. I am in hopes that the Grimm, and still more, the Siberian varieties, particularly the Orenberg, may be grown on soil that is drained less deeply, but that as yet is theory.

Where your plants heave out in the winter time, you may rest assured that you need more tile. Occasionally a man is afraid that the roots will stop up his tile ditches. You need not worry in the least. On the original portion of our home place, about two hundred acres, we have estimated that there are fifteen miles of tile drains. In twenty-five years only one of these tiles has ever choked in the smallest degree. This one runs to a spring which never goes dry, and twice in this time the roots have choked this tile. I think that where a tile does not run to a spring, you can grow Alfalfa for hundreds of years without the slightest trouble.

**Seeding** Just as long as it remains true that no two farmers can quite agree as to the best kind of corn, the best wheat or the best way to handle any one of their crops, so long will one man advocate one method of seeding and another man another method. For ourselves we know that many methods succeed. We think the most important thing is to sow some of it, but since we are giving our opinion as to what is the best, we will give you this in detail, as we have the rest of this article.

We have succeeded better with spring seeding using





**Third cutting Alfalfa, fertilized two years ago with 400 pounds per acre of acid phosphate.**

Beardless Barley as a nurse crop, and sowing in April, than we have with any other time of seeding or any other method.

We have succeeded fairly well by drilling the seed in with an Alfalfa drill on our wheat ground early in April. Probably on loose, mellow soil where a harrow preceded the drill, this method may be used where you are unable to try a better way, but our experience on stiff, clay soil handled in this way has been none too satisfactory.

We have seeded in the spring, using spring sown Winter Rye and Wheat as a nurse crop—that is, sowing the Rye and Wheat in April with the Alfalfa. This method gave us moderately good results, but we still prefer Barley to the Rye or Wheat.

We have tried seeding on top the ground in February and March and failed. Other men reported success by this method, but we advise our customers at least to go slow.

We have seeded in corn at the last cultivation and sometimes this succeeds; frequently it fails. We do not consider it a sure method, simply because the corn shades the ground too much and withdraws too much of the moisture. The reason why we do not like sowing with Rye or Wheat seeded in the spring is, that under certain conditions both of these plants stool out vigorously, and are inclined to crowd the Alfalfa a little. In addition they make not even a hay crop for us to harvest, while the Barley gives us either hay or grain.

This year we have only half enough pure Beardless Barley to go around. The next best thing is, in our opinion, 60-Day Oats, using not more than one bushel seed per acre. Too often, however, men use common late Oats as a nurse crop and fail.

Now the actual seeding of Alfalfa is mighty simple. We prefer the ground to be plowed, if possible. We want a good seed bed. We prefer to use one of the Alfalfa drills when seeding, as we think they save 25 per cent. of the seed. The best Alfalfa drill, in our opinion, is made by The American Seeding-Machine Co., Springfield, Ohio.

We aim to cover the seed only one-half inch deep. When we use Barley as a nurse crop, we use one bushel of it, and the amount of Alfalfa seed that we use varies with the conditions. If we were sowing under any kind of unfavorable conditions, we would certainly use twenty pounds of seed per acre. When conditions are approaching the ideal, we think a minimum of twelve pounds per

acre with ordinary Alfalfa, or probably ten pounds with Grimm Alfalfa, will give good results. Probably most men had better use between fifteen and twenty pounds.

Sometimes our minimum of twelve pounds gives a moderate stand in the beginning. Personally I prefer a dense stand in the beginning. The dense stand will not always yield any more hay per acre than a moderate stand, but each winter there is danger of a few plants heaving out, consequently the stand becoming thinner. If we have barely sufficient plants when first seeded, it is obvious that in a year or so there will be too few, while if we have used three or four pounds more seed at a cost of say, 50c or \$1.00 per acre additional, our stand will

last in satisfactory condition perhaps several years longer. Furthermore, the hay from a dense stand is always considerably finer, more salable and better relished by your stock than if the plants are more scattering.

If we were not sowing in the spring with Beardless Barley, we would sow early in the summer without a nurse crop. In our opinion, July 1st would be the best time for summer seeding throughout the Corn Belt. When this date of seeding is contemplated, we would plow the ground early, would frequently harrow it throughout the season to kill all the weeds, and then would sow about July 1st.

If you have no Alfalfa drill, we think the next best method of seeding is to use one of the best hand seeders and to cover the Alfalfa with a weeder. The reason why we prefer spring to summer seeding is that the rains usually come better for the April seeding than for the summer seeding, and our use of the Barley as a nurse crop prevents the weeds from doing any material damage. However, in the states south of Ohio, on account of the prevalence of various bad grasses such as Quack Grass, Crab Grass, etc., later seeding, such as September, is frequently necessary and desirable.

**Alfalfa Seed** The question of seed is of the very greatest importance, much greater than we formerly supposed. We believe that our twenty-five years' experience has taught us where to buy and where not to buy. In addition we are today introducing several strains and varieties of new Alfalfas that we believe cannot be obtained from any other source. Finally, we believe that we have machinery that will so clean and grade the seed, that we are enabled to put out a better quality than the world ever saw before.

Alfalfa is a little different from some of our other seeds. If we had not had twenty-five years of hard, practical ex-



**Third cutting Alfalfa, fertilized two years ago with 400 pounds per acre of basic slag.**



perience with these plants, experience both in large acreages and in very carefully conducted tests in our trial grounds, we would not dare to make some of the statements which follow. What constitutes good Alfalfa seed? We must answer, source where grown, variety, freedom from weed seeds and plumpness. In a general way we think we have named the requirements in the order of their greatest importance. Why should you purchase your seed from us instead of other sources? First, because as we were the pioneers to introduce this seed into the Corn Belt, the first to exploit it and to handle the seed in large quantities in this territory, and as we have had more experience along this line probably than any other four retailers combined, we are simply positive that we know what seed to recommend. We are equally positive that in the history of our business we have never recommended Alfalfa seed which did not prove satisfactory. In a word, we think that we know enough about how and where to purchase this seed so that the use of our stock is a guarantee that you are getting suitable seed, a matter which is of the most vital importance. We positively know from our tests that Alfalfa seed grown south of a certain line is not suitable for any state in the latitude of Ohio. We positively know that seed grown south of another line is not safe to sow in the latitude of New York. Furthermore, we know that seed grown in certain states possesses certain characteristics for which we can offer no explanation, but which makes it best suited for certain other states in the Corn Belt, and for years we have constantly improved our resources, buying more and more scrupulously from the territory which we knew must produce the best seed for our customers.

We place plumpness and general appearance last in importance, for the reason that beautiful seed may come out of the Southwest, but this seed would not be adapted to conditions north of the Ohio River, although it might be very good, indeed, for states south of that line, especially for states in the latitude of Alabama. We do not place great importance on general appearance, for the reason that sometimes irrigated seed, which is universally recognized as inferior to non-irrigated, possesses a finer appearance than the non-irrigated seed does. As a matter of fact, I guess you can pretty well count on it that non-irrigated seed grown in a state where irrigation is sometimes practiced will not appear as well as the irrigated.

I place variety very high because I believe in this. It will be ten years before any of us can state positively what is the best variety to grow in any particular state or section, but our trial grounds work is indicating very great importance in variety. Here, we are finding the Grimm actually outyielding Common Alfalfa, Dakota 30 being second to Grimm, the Grimm itself at this date seeming to be below the Cossack and Cherno in yield. We believe we are the only American seed firm that is doing any experimental work at all along this line, and our work is so carefully conducted that we feel the results may be absolutely authoritative.

To illustrate the difference between purchasing seed of known origin and the other kind, let me give you two examples. A neighbor who lives about ten miles away came to us not long ago and said: "Wing, I have always bought my Alfalfa seed from you, usually paying a little more than I could have purchased from my local dealer in —, but last spring I was sowing only a little patch anyway. A neighbor happened to have a little seed left over from his seeding, just about the amount I needed, so I bought his. The plants came up nicely and did all right, but a few days ago I was walking through the patch and found it about two-thirds winter-killed. I asked my neighbor where he got his seed and he said, 'From —.' I drove to town and asked this dealer where the seed came from. He said it was from Oklahoma. I told him Oklahoma seed was no good here, and now I am back to you to stay. I would sooner use your seed, even if it costs a little more, and run no risk of having this experience repeated."

Another gentleman who lives in Kentucky said to us: "I have been buying your seed for a good many years, but last spring I had your samples and my local dealer also quoted me. I sent both samples to the Experiment Station for analysis. That of my local dealer analyzed a little better than yours and his price was considerably lower. Now, I am not much of a stickler for price, and a dollar or so did not make any particular difference to me, but his analysis was better, and I saw no reason why I should not patronize my home merchant anyhow, so I bought his seed. It came up nicely, grew for awhile all right, and then stopped growing, although my other fields sown with your seed were still growing vigorously. This new seedling never got more than eighteen inches high, and I do not understand what is the matter." Investigation showed that he had purchased Turkestan seed, probably the dealer himself not knowing that the seed was not all right.

**Western Common Alfalfa** In this stock we list Texas grown seed, which we can recommend for the latitude of Mississippi and Alabama; Utah, Kansas and Nebraska seed, which may be used without hesitation anywhere south of latitude 42 degrees. This seed is medium priced. We have used it ourselves on our own farms for many years, and we always bank on satisfactory results with it. It is so reasonable in price that a little more of it may be sown per acre without undue expense, thus counteracting any possible tendency to winter-kill.

**Dakota 30 Alfalfa** This is simply Dakota seed coming from meadows which have withstood the severe conditions of the Dakotas for as much as thirty years. These conditions include temperature of over thirty degrees below zero, this coming, frequently, with the ground bare of snow, frequently freezing to a depth of over six feet. In summer time these plants are subjected to extreme drouth, to a rainfall of thirteen to sixteen inches only, and to a rather hot sun. None but the very hardiest plants can survive these conditions. A curious thing in this line shows up in our tests; that is, that the hardiest seed in the world (in which we include Dakota 30, Grimm and some others), gradually acquires some of the same typical characteristics. Last summer, for instance, in one of our fields of Dakota 30 I found flowers that I could have sworn were true Grimm. We also find a little tendency to branching roots like the Grimm, and a little tendency for the crown to be submerged like the Grimm. Evidently, Nature, when under great duress, produces plants more and more capable of withstanding the severe conditions to which they are subjected.

Dakota 30 is, in a way, necessarily a high priced seed. It is scarce and difficult for us to obtain. Rarely are we able to supply our entire needs for the season. On the other hand, since it approaches Grimm and sells for half the Grimm price, it is somewhat of a bargain. Some of our customers figure that they can sow ten or twelve pounds per acre of Dakota 30 and feel safe, whereas they would sow fifteen or twenty pounds of Western Common. In that event Dakota 30 usually figures a little cheaper than the Western Common. Some others figure that they can mix Dakota 30 and Western Common together and obtain excellent results at a moderate price.

We are pleased to say that this year we will sell Dakota 30 in sealed bags, this seal certifying to its genuineness.

**Liscomb Alfalfa** This variety comes from Montana, where it has grown for thirty-three years continuously and without winter-killing. It seems to possess a good many, if not most, of the Grimm characteristics, a blossom which resembles Grimm, a somewhat branching root, and it certainly is remarkably hardy, and some of the growers in Montana consider it fully equal to the Grimm. It will take years to determine this point, but it is undoubtedly a very valuable strain, and selling as we do for a little less than the price of Grimm, we think no one will make any mistake in using some of it.

We are selling this seed this year in sealed bags.



**Grimm Alfalfa** Sixty years ago a man named Grimm, who lived in Minnesota, brought from his native country, which I believe to have been Germany, some seed which he knew was remarkably hardy.

Up to that time farmers in Minnesota and elsewhere in the Northwest were experiencing great difficulty in retaining their meadows. They did all right the first year, but winter-killed each winter, and in a few years were practically killed out.

From the very beginning, I believe, his Alfalfa stood the winter. It may have winter-killed a little, but it certainly could not have been much, because before long it acquired the name of "Grimm's Everlasting Clover." For many years it was grown in his neighborhood only. Finally its commercial importance was realized, sowings were made all over the Northwest, and today the acreage is considerable.

Grimm Alfalfa has a few characteristics which distinguish it from the common. Its most remarkable one is its lack of winter-killing, this of course being a characteristic which no one could determine from the appearance of the plant.

Another characteristic which is frequently but not always found with these plants is a branching root. In regard to this, however, we want to say positively that we think everyone who has written about Grimm Alfalfa has said a little too much. We find in our own certified pure stocks that not nearly all of the roots branch, at least not until they attain some age, and the Dakota Experiment Station, which has probably tested Grimm Alfalfa more thoroughly than any other institution in the United States, says practically the same thing. Another characteristic of the Grimm is found only on certain plants. This is a peculiar greenish-yellow flower. Still another characteristic is a crown which is usually a trifle submerged. This trait is more noticeable, if you will dig a few plants up, and compare them with other plants of the common varieties. Since we are not growing Alfalfa for the flowers, my brief description of this great variety may not be very impressive, but do not overlook the fact that Grimm Alfalfa practically cannot be

winter-killed by cold weather anywhere south of the Arctic circle. Do not be too much disappointed if you find its tap root, especially the first year or so, straight instead of spreading. In a winter like last winter was here in the Corn Belt, Grimm Alfalfa will heave out of the ground to a certain extent. Probably it will do so almost as much as the common, but just plain cold weather has no effect upon it whatever. Do not forget, also, that in our trial grounds it appears to be outyielding Common Alfalfa, excepting only the Dakota 30, to the extent of perhaps 15%, and it is outyielding Dakota 30 a little.



Note the leafy character of this growing Orenberg Alfalfa plant.

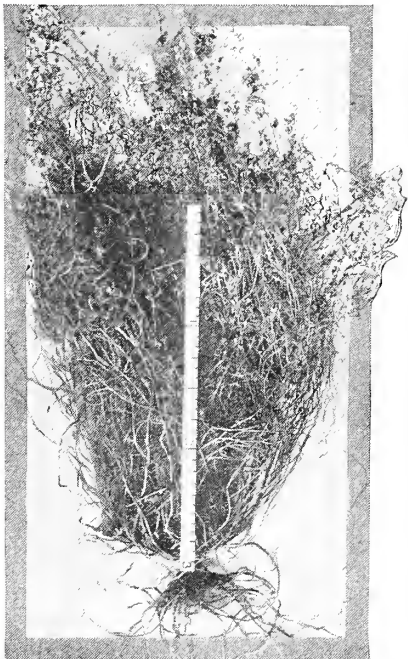
Now, as to the source of seed, we are buying this year all of these high priced varieties in sealed bags, and they will go to our customers from our warehouse in sealed bags. Our Grimm Alfalfa is grown by a grower whose meadows we have carefully inspected, so that we knew he had the genuine. They have also been inspected by his Experiment Station, and he sells the seed to us on a sworn affidavit as to the purity and genuineness. Finally, his fields are all seeded to the highest priced, hardest and most valuable strains of Alfalfa there are in the world, and whatever cross-fertilization is taking place must be of a beneficial nature. He is producing Grimm, Dakota 30 and all of the Siberian varieties. This fact of itself and the further fact that he lives in Dakota makes, in our opinion, our strain of Grimm Alfalfa to be the very best there is anywhere. It must be obvious, on the other hand, that when Grimm Alfalfa retails at from 60c to 75c per pound, with Common Western worth only perhaps 20c per pound, and no human eye being able to detect any difference in the seed, there must be great temptation to adulterate or even to sell just Western Common Alfalfa as genuine Grimm, charging, perhaps, a little higher price for it.

We advise our readers to think seriously about this subject and to be very sure of the source of their supply. Genuine Grimm Alfalfa is sufficiently scarce as yet so that it readily commands a high price, and it will do so for a few years to come. Its owners are not as yet even being asked to take a low price for the seed.

In his *Monthly News Letter* of June 15, 1916, Mr. A. W. Sweeton, County Agricultural Agent, Brattleboro, Vt., says:

"For the last three years we have been watching the work that was being done with this crop in Windham County. After careful study of the methods used we feel confident that alfalfa can be grown successfully on well-selected fields, with very little more attention than would be necessary to get a good stand of clover. The soil must be well drained and have enough slope to carry off all surface water immediately. The field must be well manured and limed to take out the acid. The seed must be sown in the spring and must be well inoculated, and all evidences to date are that seeding in midsummer after oats and peas is preferable to spring seeding.

"The Grimm alfalfa is said to be the most hardy variety, but on account of its high cost it is almost prohibitive. On two variety tests that have been running since August, 1914, two varieties of common alfalfa grown in South Dakota have wintered as well and have yielded larger than the Grimm. We had hoped to be able to pick a best variety for Windham County and provide means for our farmers getting that variety, but owing to the scarcity of all northern-grown seed in 1915, about the best that can be done is to get common Idaho alfalfa."



A Grimm Alfalfa plant sent us by our grower in Dakota. Many leaves were broken off in transit.



**Siberian Alfalfa** Several years ago the Government sent Dr. N. E. Hansen, who is known as a plant explorer, to Europe, his object being, among other things, to follow Alfalfa to its farthest northern habitat and to bring back what he found there. This trip cost many thousand dollars, and quite naturally Dr. Hansen brought back only a few pounds of seed. He found several new varieties growing in high dry localities, having a rainfall of less than twenty inches, sometimes only twelve or thirteen inches, a short hot summer, and a long bitterly cold winter.

The best varieties that he found there are the ones we list below. They have now been tested, principally in Dakota, for a number of years. We also are testing them in our trial grounds, and many of our customers are working with them. At present they give promise of being extremely valuable, more valuable even than the Grimm. We do not, however, want our customers to plunge into growing them without carefully testing first, because no one has given them a sufficiently long test as yet to be positive today just what the final results will be.

**Cossack** This variety is, at present, perhaps the most important one, simply because there is a little more seed of it available than of the others. It is a hybrid, a cross between yellow and purple-flowered varieties. The result is a bewildering variety of colors in its blossoms. Some are purple, some are clear yellow and some have every intermediate shade. The main plant closely resembles the Grimm. The root is nearly like the Grimm, and the crown is also similar, although the crown looks larger to me, in some cases being fully fifteen inches in diameter and submerged as with the Grimm.

In our trial grounds the Cossack seems to outyield the Grimm by perhaps 15 per cent. This variety is supposed to be fully as hardy as the Grimm and is therefore one of the hardest in the world.

In order to encourage our customers to test these new varieties out in small quantities, we offer this seed as follows: **Pkt., 10c; Oz., 20c; Lb., \$1.00. In sealed bags.**

**Cherno** This variety so closely resembles the Cossack that I can see no difference between them whatever, and really think the two should be thrown together. **Price, Pkt., 10c; Oz., 20c; Lb., \$1.25. In sealed bags.**

**Semipalatinsk** It was hoped that this variety would make a pasture plant on the great western arid plains. I do not know how well it will succeed, but I rather question its becoming as important in the Corn Belt as the other varieties which we are selling.

Its general characteristics are the same as the Grimm, but the plants are larger and coarser, and I think that on rich ground it will be a little too coarse to make good hay. In other ways it does resemble a real pasture plant, there being some tendency to recumbency. **Price, Pkt., 10c; Oz., 25c; Lb., \$2.00. In sealed bags.**

**Orenberg** No one knows yet how important this variety will become any more than we know to a certainty about the other Siberian Alfalfas, but I have seen lots of Alfalfa in all parts of the country, and unquestionably this variety is the most remarkable one in some of its characteristics that I have ever seen.

In the first place its underground root system is different from any other. It practically has no tap root at all. A few inches under ground its roots fork in all directions. Some of them go down, I presume, rather deeply; others at a depth of about 8 inches run horizontally, and from time to time send up new plants. The photograph which we give shows a portion of one of these plants. Our grower says that the last "baby" in this family was fifteen feet from its mother. The plant was about four years old. When I saw these plants two years ago, the greatest distance that I could find was about seven feet from the parent plant to its farthest offspring. At that time the parent plant had made a solid mass of its crown, this being probably a little over two feet in diameter at the surface of the ground, and probably containing something over five hundred stalks.

The stalks themselves are finer than common Alfalfa, smaller and more wiry in appearance, although no more woody than I could see than common Alfalfa. Possibly they did not grow quite as tall as common Alfalfa, but such a mass of forage on a few square feet as was produced by one of these plants I have never seen before in any kind of Alfalfa, no matter how thickly planted.

The crowns appear to be four inches under ground. This fact, and the peculiar root, would make this variety absolutely impossible to freeze or heave out of the ground. While the stalks were smaller than common Alfalfa, they were also more leafy, the leaves being clustered thickly clear to the ground.

This variety is only expected to make two cuttings a year in the Corn Belt. Our grower makes two cuttings in Dakota, and his season is shorter than ours. It is, however, slow about recovering, and he thinks we will probably secure only two good cuttings here. He says, however, that he would sooner have two cuttings of Orenberg than three of any other variety, and we believe he is right. However, we are asking our customers to do nothing but experiment with this variety. We are testing it ourselves as carefully as possible under varying conditions, and all of us will know more about it in a few years.

The seed of Orenberg is the rarest of any important new variety of Alfalfa, and prices are therefore extremely high. **Price, Pkt., 10c; Oz., 25c; Lb., \$2.00. In sealed bags.**

**Breeding Alfalfa** Partly through our own efforts and partly through the earnestness of the best farmers throughout the country, much interest is being taken today in the new varieties of Alfalfa, and many of our customers are giving the matter considerable thought. This brings up a perplexing subject concerning which we wish to offer some suggestions. In the first place, bear clearly in mind the fact that Alfalfa is an open or cross fertilized plant; that it is fertilized by insects flying, in many cases, for two or three miles. In order to prevent it from being cross fertilized, you would have to screen your plants. Naturally this, especially on any large scale, is impractical, and we must therefore let Nature follow out her own course.

It is supposed that Grimm Alfalfa receives not only its peculiar colored blossom, but much of its hardness, and doubtless its tendency towards a forked root from a yellow-flowered wild plant with which it hybridized perhaps a hundred years ago. The yellow-flowered blood in this case was very valuable, and we are all glad the cross occurred. Cossack and Cherno are both hybrid varieties with a free admixture of yellow-flowered blood. Semipalatinsk, as introduced into the United States, was a clear yellow-flowered variety. Today American-grown seed shows hybrid qualities—purple, yellow and all gradations between.

The same thing is true of the Orenberg. You will find today, in American-grown seed, the flowers running some yellow, some purple and intermediate stages. Immediately the question arises, "Is this hybridization going to ruin our new hardy varieties? Will they lose their hardness and their other valuable characteristics by crossing with common Alfalfa all around them?" This question has never been answered by the scientists. Maybe they never thought of it, but the nearest thing to an answer we can readily reason out ourselves.

Grimm Alfalfa was brought into the United States seventy years ago. It was a distinct, although hybrid variety, at the time of its introduction. During all the years that it has been here it has been surrounded by common Alfalfa at all times, and yet, so far as I am able to ascertain, its vital characteristics have not changed.

In all breeding operations, there are certain characteristics called dominant. The white face of the Hereford is a dominant characteristic; so is the black coat of the Angus. It would seem very probable that with the Grimm Alfalfa its most useful characteristics had been dominant in the blood and would remain fixed for all time. It would seem reasonable to suppose, also, that the same useful char-

acteristics which are found in the Cossack, Cherno and Semipalatinsk—that is, the form of root and crown and quite possibly the yielding ability—might be dominant and stay with us just as well as the Grimm qualities have. It would seem as though the Orenberg with its wonderful root system, its splendid crown and remarkable foliage, might be expected to retain these qualities indefinitely. The color of the blossom, in my opinion, is not a dominant characteristic and may be expected to gradually change with years, although I would not expect the yellow to be ever entirely obliterated. We are not growing these plants for the blossoms and therefore this matter does not worry me.

As to the hardness, we have less data to go by. It is true that Grimm Alfalfa is fully as hardy today as it was seventy years ago. In fact, for all that I know, it may be even harder, but it has not had much of a test in this way, since all this time it has been grown in the bitterly cold regions of the Northwest, where other varieties of Alfalfa were pretty sure to perish. If the Grimm were grown in Arizona for ten years, I think it possible that its hardness would be materially lessened. No one has tested this out carefully, but I think that most of the Alfalfa experts agree that theoretically even the Grimm, hardy as it is, would suffer in this respect if it were grown in the Southern states. This matter is not of the greatest importance in the world, however, because we can easily grow enormous quantities of the seed in the rigid climate of the Northwest, and thus maintain the very great hardness of these strains.

It may interest our readers to know that our grower in Dakota operates a large ranch and grows nothing except "Dakota 30," Grimm and the Siberian varieties. Therefore his seed, while it would unquestionably be freely hybridized, would be crossed with nothing but the hardest seed that exists in the world today. We believe there is no other seed produced anywhere that can claim these advantages.

**Turkestan** We have intentionally left this variety to the last, because it should rightfully be the least important Alfalfa known today. Our customers, who have used it, complain bitterly that it makes only half the growth of common Alfalfa and nearly always, as soon as they find that they have it, they plow the meadow up.

It was brought in by the U. S. Government perhaps fifteen years ago under the hope that it would prove more drought resistant than common Alfalfa. However, even the U. S. Government today discourages its growth. We tested it out fifteen years ago, and for us it seemed to yield not more than half what the common did. It is a measly, puny variety that deserves no place whatever in American agriculture. Unfortunately, for some years its seed was easily obtained and low in price. The result was the importation of very large quantities and countless farmers bought it, not knowing what a worthless thing they were getting. Most of the Experiment Stations have issued warnings against it, and there is not much excuse now for anyone being ignorant concerning this variety.

**Educational Packets** Over the entire country today men are wanting to try out the new varieties of Alfalfa. In order to make it most convenient for them and as little expensive as possible, we have prepared a collection including the Cossack, Cherno, Orenberg, Semipalatinsk, Grimm; also including Turkestan, "Dakota 30" and Melilotus Alba. These packets should be planted in your garden, and you will learn about as much from them as you need to know in order to be sure whether you want to grow these new rare varieties or not.

The price of a set of the Educational Packets is 50c.

## SPRING WATER SEDIMENT

### Agricultural Lime

I am selling a natural, unburned product, finely ground, immediately available, analysis 95% Calcium Carbonate. Write for circular.

M. R. GRINNELL, Yellow Springs, Ohio.

## CARE OF ALFALFA MEADOWS

It is nearly impossible to thicken a thin stand; usually it does not pay to try.

The first year that Alfalfa is seeded, clip it as little as possible.

One clipping after removing the nurse crop is plenty.

Do not pasture with any kind of stock excepting horses and hogs, unless you have no fear of bloat.

Do not pasture with anything late in the fall.

Do not begin cutting for hay until the little shoots appear at the bottom. When these are an inch long it is time to start mowing.

If Blue Grass or any other grasses and weeds threaten, especially after the first year, harrow vigorously, after removing the first crop, with an Alfalfa harrow.

The best of these harrows that we know of are made by Bucher & Gibbs, Canton, Ohio, and The American Seeding-Machine Company, Springfield, Ohio.

Do not be stingy with your fertilizer on an Alfalfa meadow. You cannot go wrong in applying Phosphorus. We use this very liberally, even on our richest land.

You should apply Basic Slag, 100 pounds or over, every year, or Bone Meal in slightly smaller amounts. If preferred, put on three years' supply at once. Basic Slag is the very best fertilizer we have ever found for Alfalfa; next to it is Bone Meal. Harrow either one of these fertilizers in a little after applying them.

When making Alfalfa hay it is better to rake as soon as possible, and I prefer curing principally in shock, letting the shock stand three days before putting into stack or barns. Do not put into the barns too soon, as there is danger of spontaneous combustion.

## FERTILIZERS

Merely as an accommodation to our customers, we are handling fertilizers. Our profits in this business are too small to find with a microscope, but some of our customers want the material, and for their benefit we are carrying a complete line. What we think of these fertilizers we will state very briefly.

We find Phosphorus the most important element to use, the one which pays best under all conditions and for all crops. This is especially true with the legume crops. We find the very best carrier of Phosphorus to be Basic Slag; next to it is Bone Meal. We find the highest analysis (and incidentally the highest priced brands) of Bone Meal to be actually cheaper in the end than lower priced brands. We find Acid Phosphate very frequently injurious to Alfalfa, and would always prefer using Bone Meal or Basic Slag for any crop. Basic Slag contains 25 to 50 per cent. of Lime, 17 to 19 per cent. Phosphoric Acid. We are licensed to sell Basic Slag in Ohio and Indiana only and cannot sell in any other states.

Potash is necessary on muck grounds; is decidedly useful when growing onion crops.

Complete fertilizers can be used to the best advantage on Wheat or on Vegetable crops.

The best carriers of Nitrogen we find to be Nitrate of Soda and Blood Meal. Nitrate of Soda is quicker than Blood Meal and not quite as safe.

## INOCULATED ALFALFA SOIL

Especially prepared for inoculating new land for the growing of Alfalfa. 75c per cwt., or \$10.00 per ton, f. o. b. cars. Send for free booklet "How to Grow Alfalfa." Dr. H. Somerville, Chest Springs, Cambria County, Penna.

## LIME MANUFACTURERS

\*The Interstate Stone Co., Lewisburg, Ohio. Delivered prices made on request. 94.90% Pure Lime.

\*The Security Cement & Lime Co., Baltimore, Washington, Pittsburgh; main offices, Hagerstown, Maryland.

\*The France Company, No. 1800 Second National Bank Bldg., Toledo, Ohio.

The National Lime & Stone Co., Carey, Ohio; Hydrated and Agricultural Lime.

\*The White Sulphur Stone Co., Marion, Ohio; works at White Sulphur, Ohio.

\*Charles Warner Company, Philadelphia, New York City, Wilmington, Delaware. Hydrated Lime and all Lime Products for Agricultural and Building Purposes.

\*The Fischer Lime & Cement Co., Memphis, Tenn.

\*Dittlinger Lime Co., New Braunfels, Texas; also manufacture Hydrate and Fertilizer Lime.

\*The Ohio Marble Company, Piqua, Ohio. Manufacture "TOMCO" Ground Limestone for Agricultural use.

\*Handle Ground Limestone Rock.



# INSURE YOUR ALFALFA AND CLOVER SEED

## INOCULATE WITH



**T**HE first to appreciate the wonderful possibilities of legume bacteria were Doctors Nobbe and Hiltner, of the Royal Agricultural College of Munich, Germany. For years they experimented and finally succeeded in breeding in their laboratory, strong, healthy, vigorous nitrogen-gathering germs. Realizing that their wonderful discovery meant a world benefit only when the practical farmer could make use of it, Nobbe and Hiltner evolved a way of packing the germs in a medium that insured successful delivery to the farmer—the germs **absolutely guaranteed** to be as strong, healthy and vigorous as when they left the laboratory.

This process is called the Nobbe-Hiltner Process; the product is called "NITRAGIN," the trademark name that distinguishes the original Nobbe-Hiltner Pure Culture from imitations all over the world.

"NITRAGIN" Pure Culture is packed in a granular medium, in a ventilated tin can. Packing date is marked on each can.

The Nobbe-Hiltner improved method of packing "NITRAGIN" Pure Culture in granular form, and sending it to the farmer in ventilated tin cans, is the safe and certain way. Because of this method and the nature of the medium the manufacturers are enabled to guarantee life, strength and virility of germs for **six months** from packing date.

"NITRAGIN" Pure Culture has been used in Germany for 17 years. Last year it was used on more than a million acres. This year you should use it on **your** Clover, Alfalfa, Cow Peas, Soy Beans, Vetch, Field Beans, Garden Peas and Beans—in fact on **all** legumes.

Remember, each legume requires its own particular kind of bacteria. A special strain of "NITRAGIN" Pure Culture is prepared for each legume. In ordering be sure to name crop desired.

Soil inoculation by "NITRAGIN" Pure Culture simply means **seed safety** and **crop insurance**. It is **not** expense, but an **investment** which will yield twenty-fold returns. No mystery about it. Simply billions of strong, healthy germs, guaranteed for six months. Your legumes must have these germs to draw nitrogen from the air. Easy to apply—a boy can do it. Just add water and mix with seed—let dry—plant as usual.

Owing to the appreciation of this product by the farmers, the volume of business has been greatly enlarged within the last year, and of course the cost of manufacturing has been reduced, so we can offer the following prices:

Garden size, 50¢ per can; 1-acre size, \$1.00 per can; 5-acre size, \$4.00 per can; 100 acres, \$75.00. F. o. b. Mechanic burg. Express extra. Parcel post, 10¢ per can extra.

### New Jersey Agricultural Experiment Station. Bulletin No. 226.

"The weight of dry matter in the inoculated crops (Alfalfa) amply demonstrated the culture of "NITRAGIN" employed for inoculation was very satisfactory for the purpose for which it was intended." (Alfalfa yield increase due to "NITRAGIN" was 500 per cent. Beans increased 75 per cent. Lima Beans and Cow Peas more than doubled.)

## CORN

### CORN BREEDING VERSUS CORN SELECTION

There are two principal methods in use today in improving Corn. One is selection, the other breeding. Selection, as ordinarily practiced, usually begins with a variety of Corn in which the grower has confidence as being a good yielder for his locality. If he carries this principle out properly he will go through the field rather early in the fall, select the most mature ears of what he considers the best type; will hang this up to dry early enough so that the moisture will be thoroughly dried out before severe freezes. He may, in the spring, germinate every ear in order to be sure that all will grow, and he will probably shell off butts and tips, discarding these, and putting the rest of the Corn through a grader in order to facilitate the use of an edge drop planter.

The Corn breeder does everything that the other man does, and in addition he puts out each and every year an ear row test plot and a multiplying block. I am perfectly well aware that most farmers think Corn selection is all that is necessary. I think we could convince any one of them in one year's time that breeding possessed great advantages, providing we could put out an ear row test plot on his own farm, using his own Corn or any other Corn for the work. I know that up until fifteen or sixteen years ago we considered selection all right ourselves; then Professor Holden told us of ear row test plots. We put one out, and our supposedly well bred corn varied in test plot from about forty bushels per acre to about one hundred bushels. In other words, two ears of apparent equal worth, as far as one could tell, contained inherent good



A breeding block of Wing's Improved White Cap Corn.

and bad traits to produce at the rate of one hundred bushels per acre, or only forty. From that year to this we have never neglected any season to have our ear row test plot. Today our Corn is much more uniform in yield in test plot than it was at that time. In fact, sometimes we have had practically every ear in test plot to make one hundred bushels and over per acre. When we began, the fodder in one row would frequently be six or seven feet tall. In another row it would be twelve or thirteen feet tall. We

do not grow Corn exactly for fodder, but realizing that uniformity was absolutely necessary, we have bred this Corn until now the fodder is practically uniform in every row.

**Price** For some years we have found it necessary to increase the price of our pure bred seed Corn a little each year. This was not because we were making more out of the seed, but because each year we have done work on it; have put out better Corn, Corn which cost us more money than any previous lot had done, and I want to say that I do not believe it possible for any Corn breeder in the United States to sell genuine pedigreed Corn, handled the way that ours is, at a lower price than we are selling, if he is to have any margin of profit left out of it. It is possible to handle Corn that is merely selected and not bred for a lower price than we can handle our pedigreed Corn. We know that our price on pedigreed Corn is a good deal higher than the ordinary price of selected Corn, but ours costs more, and most carefully conducted experiments demonstrate that it is worth more. It is Corn, all of which traces to a positively known, high yielding parent, and will go on producing highly in the future, while selected Corn traces only to good looking ears which our ear row test plot work has conclusively proven to be anything at all, either good, bad or indifferent. We think no man can tell much about the yield of an ear of Corn from its appearance. The more we do our ear row test plot work, the more convinced we are of this, and we depend now entirely upon proven production instead of selection by the eye alone. While we breed for large yield, we are equally particular about maturity. Every variety which we breed must mature satisfactorily for us, and our customers can rely upon any statements which we make along this line. We use large breeding blocks and accomplish in one year as much as we formerly did in four. In addition to breeding we take this Corn into our steam-heated warehouse early in the fall before hard freezes. We cure it entirely on the Knox wire hangers, a system which we think is absolutely perfect. Throughout the winter skilled men work over this Corn, nubbing and tipping, rejecting not only bad but questionable Corn, shelling and grading it, and our system is now so perfect that we cheerfully guarantee 98% germination on this pedigreed Corn, and grading down to one sixty-fourth inch.

**Ensilage Corn** We have used ensilage on our own farms for many years and think we have studied the question from every angle. Our conclusions are that in the first place we want, of course, a reasonably heavy yield of corn to go into the silo, but that with us it is of vastly more importance to have the corn of proper quality rather than to have a yield only. We have used big Southern Corn with stalks as large as a strong man's wrist, growing probably fifteen feet or over in height, and we have used many varieties of moderate sized corn. We would not have the Southern Corn at all now, simply

because while the gross tonnage per acre is quite large, these mammoth stalks are not eaten by any of our stock. We, therefore, have to have a rather expensive building that is occupied to, say one-fourth or one-third its capacity, with big stalks which nothing will eat; we are to a heavy expense putting the crop into this building; to a further expense taking it out and feeding it; to a still further expense in hauling the refuse out for manure, and after all, about all that we have accomplished is a field of corn that is big. There has been an economic loss along the entire line, and we are entirely through handling corn in this way. What we actually try to do is to eliminate this economic loss; in other words, to put corn into the silo in such condition that it is all relished by our animals. When we accomplish this we have no loss of room in the silo and no waste labor anywhere along the line. We do accomplish this result at a very moderate expense and in a very easy manner. We take as leafy a foddered variety as we have and one with ordinarily a stalk not too large in diameter. We plant this as thickly as we possibly can; are now using over twenty pounds of seed per acre, sometimes nearly twenty-five pounds with certain varieties. This gives us a stalk about every five inches. The yield per acre satisfies us, being greater than we would secure if the corn were planted farther apart, and the stalks come to the cutter, the largest of them not more than twice the size of a strong man's thumb. We have been breeding one variety of our corn especially for silage purposes. This is our 115-Day Yellow, which is described later.

This year we are handling two varieties of seed Corn which are not pedigreed at all, Blue Ridge Ensilage and Longfellow Flint. Our prices on these varieties will be about half what our pedigreed corn sells for, and our margin of profit will be fully as great as it is on the pedigreed corn, every variety that we have excepting these two being most carefully bred.

The price of pedigreed seed corn is not half as important as it looks. Our highest priced corn costs you, with freight added, a little less than one dollar per acre. Your own seed, by the time you take care of it, germinate, nub and tip it, shell and grade, will cost not far from two dollars a bushel, and our corn must yield only about one bushel more per acre to pay the extra cost of the seed.

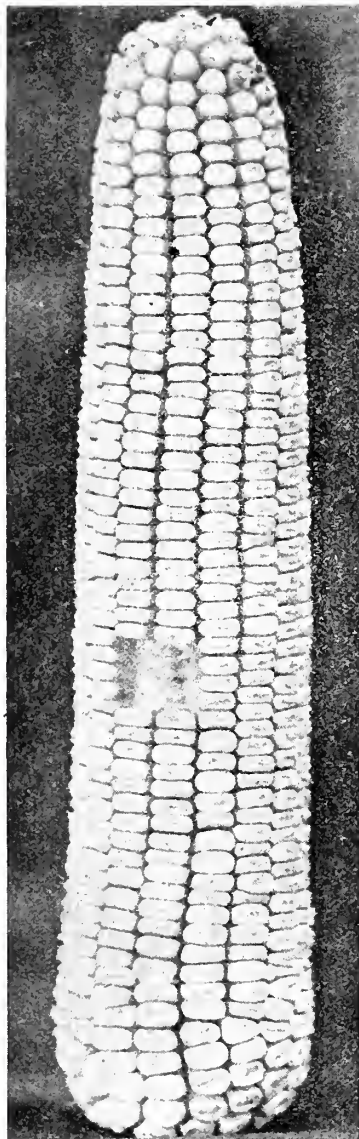
We have, however, a little demand for the Southern ensilage varieties, and to satisfy this demand we are this year putting in Blue Ridge Ensilage, grown for us in Virginia, not pedigreed, and not as good as our pedigreed corn, but of the best quality which we can obtain outside of our pedigreed varieties.

Bearing out our theory on ensilage in a remarkable manner is the set of figures published in *Hoard's Dairyman*, showing the result of a test in Saint Lawrence county, New York, of different varieties of corn when made into ensilage. The table follows:

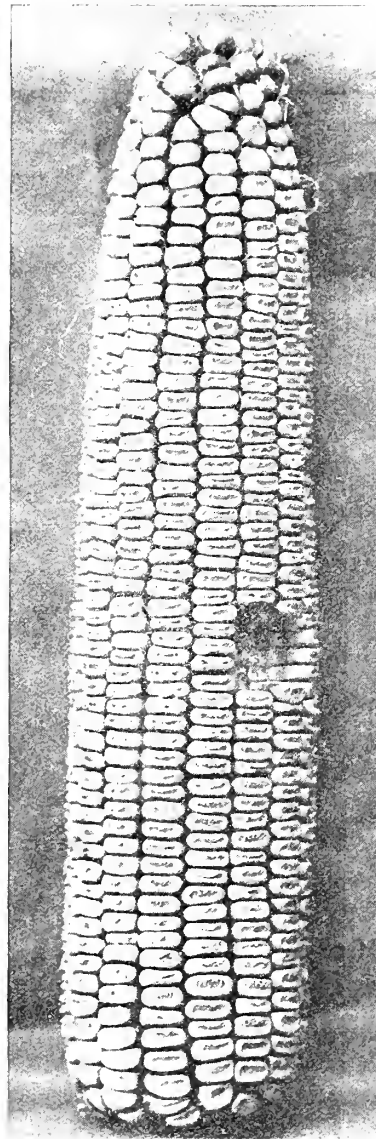
## YIELD OF DRY MATTER AND COMPOSITION OF TEN VARIETIES OF SILAGE CORN

VARIETY AND STAGES OF MATURITY.		Green weight	Dry matter	Protein	N. F. extract	Crude fiber	Crude fat
		per acre.	per acre.	per acre.	per acre.	per acre.	per acre.
		Tons.	Tons.	Lbs.	Lbs.	Lbs.	Lbs.
No. 1.	Dents—						
1.	Eureka—Early milk .....	23.0	3.45	565	4,104	2,104	74
2.	Leaming—Milk to dough .....	13.7	2.44	440	3,081	1,038	57
3.	Bailey—Dough to dent .....	14.9	3.58	614	4,656	1,499	104
4.	U. S. 133—Hard dent .....	14.0	3.55	539	4,749	1,322	148
5.	Early Huron—Hard dent .....	12.3	3.51	630	3,645	1,319	133
	Average dents .....	15.6	3.31	558	4,047	1,474	103
No. 6.	Flints—						
6.	Sanford White—Glazed .....	19.2	4.09	648	5,607	1,359	134
7.	Golden Nugget—Dough to glaze .....	16.3	3.21	466	4,190	1,372	130
8.	Longfellow—Dough to glaze .....	13.8	2.86	462	3,617	1,181	107
9.	Angel of Midnight—Mature .....	17.1	4.33	760	5,824	1,245	195
10.	King Philip—Mature .....	14.6	3.48	584	4,658	1,229	166
	Average flints .....	16.2	3.59	584	4,799	1,277	146
	Average 5 mature Nos. 4, 5, 6, 9, 10 .....	15.4	3.79	632	4,897	1,295	155
	Average 5 immature Nos. 1, 2, 3, 7, 8 .....	16.3	3.11	509	3,930	1,457	94

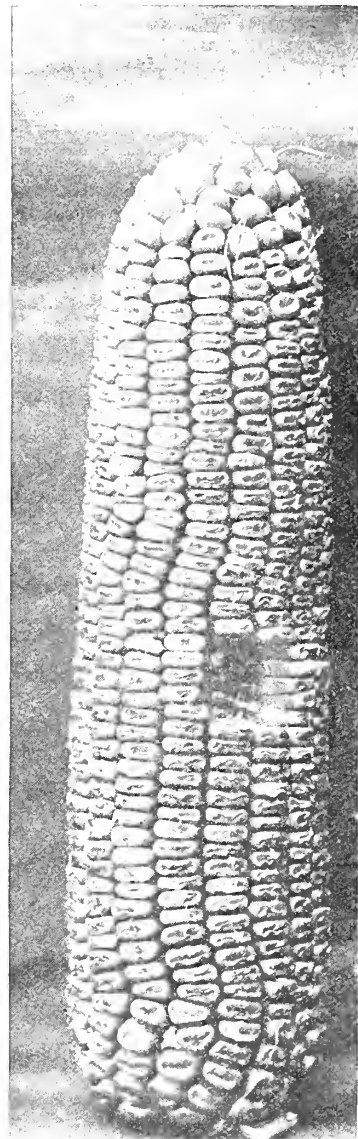




White Cap.



120-Day Yellow.



115-Day Yellow.

**Wing's Improved White Cap** This variety we began work on before we ever dreamed of selling seed corn at all, and we never offered an ear of it until it had been through many seasons of test plot work. It is one of our very heaviest yielders; sometimes in variety plot outyielding every other variety we have, and frequently doing so in large fields. We rather believe that, taking the state over, this variety will outyield any and every breed of corn grown in Ohio today capable of maturing before frost, as our White Cap does, unless it be Wing's 120-Day Yellow, which yields about the same. It has fodder of about average height, rather sturdy. It has ears of more than ordinary length, about sixteen rows to the ear; the grain not pure white, but tinged with yellow, from which it derives its name. It needs one hundred and twenty days in which to mature. With us it seems to do very well indeed, either on our richest ground or on rather poor ground. It makes beautifully solid corn, free from chaffiness, and the elevators ordinarily say that it is the best corn that they take in. We do not advise farmers to grow it, at least on a large scale, in the northern part of the

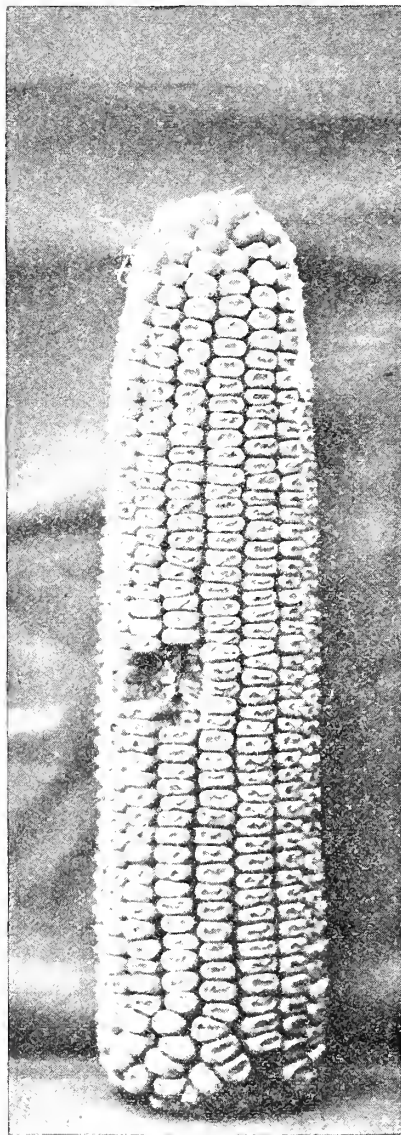
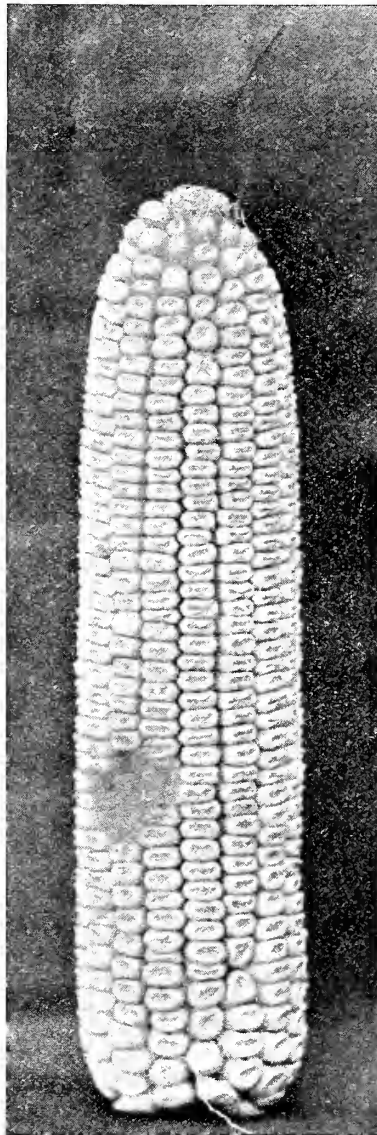
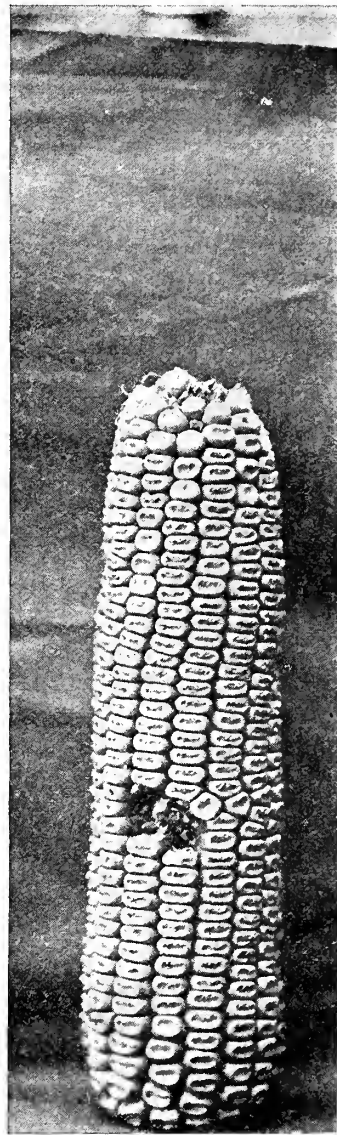
state, except right along Lake Erie, where the conditions are ameliorated by the lake itself, and where it is apparently perfectly safe. It has medium sized cob and a good depth of grain. Not a "pretty corn," but it certainly does yield.

We are pleased to announce that this year's State Corn Contest has been won by Dewey Hanes with our White Cap Corn. Yield, 137.8 bushels.

**Wing's 120 Day Yellow** Medium-sized fodder; ears medium-sized, with splendid quality of grain; matures for us in one hundred and fifteen days; yields nearly as much as White Cap. We can recommend this variety for planting north as far as latitude 42 degrees. It does well in southern Michigan; very well indeed in New York state. It is one of our favorites and we think very hard to beat.

**Wing's 115 Day Yellow** The deepest grained corn we grow; matures in one hundred and twenty days; in some respects the best variety for ensilage that we have, maturing at about the right time; the stalks tall, slender and quite leafy. This is the variety we use ourselves from preference for ensilage.



**Clarage.****100-Day White.****Minnesota 13.**

**Longfellow Flint** A few of our customers want Flint Corn and this variety is one of the best representatives of any Flint Corn grown. It is early and also a good yielder. We do not grow our own stock, but purchase it from what we believe to be a reliable source.

**Clarage** The longer we grow this corn the better we like it. It is decidedly early, usually about a week ahead of 120-Day Yellow, and therefore adapted to any section of Ohio or up to latitude 42 degrees. It does well in the southern tier of Michigan counties and in New York state. On poor ground it is invaluable, probably the best yellow corn we have. It is also adaptable and on rich ground it grows practically as large as any variety we have; also on rich ground it becomes somewhat later. The quality is excellent, perhaps the heaviest corn we have. A nice ear and excellent grain.

**Wing's 100 Day White** This is a white Clarage; ripens at the same time; has all of the desirable characteristics of the Clarage; ordinarily matures a week before our 120-Day Yellow; ears of moderate length and size, splendidly formed, very well covered over butt and tip; very heavy and nice quality; excellently

adapted to poor soil and a short season; an excellent yielder. We can recommend this variety for the southern tier of counties in Michigan and for New York state as well as for locations south of there.

**Minnesota 13** This corn matures for us four to six weeks ahead of the White Cap, making beautifully sound corn of good quality. It is the best very early corn that we have ever seen, and for this purpose we doubt if anything else in Ohio equals it. It yields for us quite well. We consider it invaluable for hogging-off early, before the late corn is ready, or for any other purpose where a particularly early corn is needed. We keep our stock early by growing it in northern Ohio, and also by selection.

**Blue Ridge Ensilage** A variety coming from Virginia and extensively used for ensilage everywhere. We have already stated what we think about southern ensilage varieties. This one seems to be smaller and earlier maturing than the Eureka; on that account much superior to that variety. Sometimes Blue Ridge Ensilage will mature grain in central Ohio. Our stocks come from what we believe to be a reliable source in Virginia.



## SOY BEANS

THE introduction of Soy Beans into American Agriculture marks a decided advance and we are proud of the fact that just as we were the first to push Alfalfa in the Corn Belt, we were also the first to push the Soy Beans in that territory. We are also proud of the fact that after having tested all of the important varieties sent out by the Government as well as secured from other sources, there are, we believe, no other varieties of beans sold in any large quantity throughout the Corn Belt, excepting those which we ourselves have been pushing. Beginning fifteen years ago to grow these beans on a small scale on our farm, we gradually acquired experience with this plant, and a few years later when the Government began importing large numbers of new varieties, we carefully and thoroughly tested many of those that seemed likely to succeed in this territory, until now we have experimental data of our own covering every promising bean that we know anything about. The result of these years of experimental work is that we can offer to our customers varieties which have already passed the experimental stage and which are certain to be the best adapted to our territory. In addition, we were the first American seed firm to pay any attention at all to establishing pedigree selections of this plant. We will describe this work in more detail a little further on.

The Soy Bean is simply a wonderful plant and one that is unique in American agriculture, combining good qualities found in no other plant grown. In the first place its grain carries the highest per cent. of protein and fat of any grain produced in the United States, analyzing richer than oil meal, nearly as rich as cotton seed meal, far more digestible than either one, and much more palatable. In the second place its forage, by chemical analysis, com-



Making Soy Bean Hay.

pares favorably with Alfalfa itself, although in digestibility and palatability the Alfalfa would probably be superior. In the third place it is, in our opinion, one of the greatest soil builders we have, provided it is inoculated, and then that it is returned to the soil in the form of manure. In the fourth place it does well on poor ground, rather better in our opinion on soil of moderate fertility than on very rich soil. It is remarkably useful as a catch crop, there simply being no comparison between its value and that of millet for this purpose, and it is useful as ensilage when made in connection with corn.

As a grain crop it will compare favorably with any crop we grow. You can count on twenty bushels per acre, which, analyzing higher than linseed meal, should properly be worth at least two cents per pound and probably more than that. In addition, when threshed for grain the straw is decidedly good feed, comparable in our tests with reasonably good clover hay. It is simply surprising to see how the stock do love this straw, and they thrive on it excellently. It is a fine crop for hogging-off in connection with corn, and hogs will thrive on it better than on any other grain that you can find. It makes hay that is a trifle coarse and trifle difficult to cure, but where one is short on hay and needs a quick-maturing catch crop for this purpose, its chemical analysis is so high and its palatability is so great that its faults may easily be overlooked.

This is the first year that I have ever made hay of Soy Beans, but this year I drilled on an old pond one bushel per acre of Jet Beans, using a Superior drill, and all holes open. The ground was perhaps four to four and a half acres. I cut one-half of these and mixed with the corn when filling my silo, securing twenty-eight loads, probably one ton to the load of green Beans; the other half I cut for hay, securing seven and a half loads like the illustration. Perhaps they averaged a ton to the load. Where used for either one of these purposes, I think no one is likely to be disappointed, and for myself I intend to put out a small acreage this way each year. My stock are eating the hay practically as well as Alfalfa, and in the ensilage I am certainly eliminating some Cotton Seed by using this mixture.

Many of our customers are sowing the Beans right in their corn and harvesting both together with a corn binder when they fill the silo. Our own experience with this has been unsatisfactory, because the corn shaded the Beans too much, but so many people have succeeded with it that it would be idle for us to say that the plan positively would



Ito San.



**Wing's Mongol Soy Bean.**

not work. For ourselves, we find no difficulty in growing the Beans separate from the corn, and when filling the silo we have two teams haul Beans while six teams haul corn. This keeps one wagon load of Beans at the silo all the time and works very nicely. Many others of our customers wish to hog the Beans off together with their corn. This works all right if we use a small foddered corn, such as Minnesota 13. The Ito San Bean goes with this variety of corn nicely and they mature together.

**Planting and Cultivation** There is really no difficulty in growing Soy Beans. Prepare a nice seed bed, free from clods; sow immediately after corn planting, using a Superior drill with what outlets you do not want capped. We space rows twenty-eight inches apart. Cover the seed just as shallowly as possible. Different varieties require different amounts of seed, but most sorts will use fifteen to twenty pounds per acre. Cultivate as you would corn, but practice as level cultivation as possible. We advise sowing in drills and cultivating whenever desired for grain or seed. When desired for hay we advise sowing solid, using one bushel of seed per acre. They may be sown for hay as late as July 15th and still give very good results.

We advise inoculation in all cases where you have not already grown them and found nodules on your roots. Growing twice in succession on the same ground will not give you the inoculation.

**Harvesting for Grain** When the proper varieties are used, Soy Beans are very difficult to harvest for grain. Some of the old varieties were almost impossible to save. The Medium Green is the worst that we ever saw in this respect, shattering very easily and being very unsatisfactory on this account. For ourselves, we prefer to let the pods get reasonably ripe. We prefer to have all of the leaves fall before we begin cutting. Then we take a McCormick Self Rake, work only when the dew is on, and have no difficulty at all in saving the crop. After cutting we let them lie in the bunches dropped by the self rake for a day or so, then if the weather is pretty warm we place them in small shocks. This helps to prevent shattering. If the weather is cool it is unnecessary to place them in shock. We are never able to thresh in less than two weeks from time of cutting, and sometimes it takes longer. After threshing, leave them in the sacks until they have thoroughly dried out, as they heat easily, and especially if desired for seed they will be damaged by this heating.

**Harvesting for Hay** Soy Beans are rather difficult to cure for hay. The most ap-

proved method seems to be to cut in the afternoon when there is no dew on the plants; to rake about as soon as they are wilted in order not to lose the leaves; cure a little in wind-row and a good deal in shock. The southern racks, such as are used in curing Cow Peas, are well adapted to the beans also.

**Varieties** Nowhere can you make an easier mistake than when choosing varieties of Soy Beans. Some of these are adapted to forage, others are adapted to grain. Many varieties will not mature grain north of the Ohio River. Some of them are weak stemmed, grow recumbent and are therefore difficult to handle. Furthermore, some varieties will thrive in Indiana, but will not do well, say in New York state. Climatic conditions seem to affect them everywhere. There will always be found certain varieties adapted to your own state and not so well adapted to other states. It is therefore wise to pay particular attention to the varieties that you are sowing.

**Wing's Mikado** This variety has given splendid results in several different states, including Indiana, Ohio and Pennsylvania. It grows to a moderate height, ordinarily about three feet, and has a strong, vigorous stem, a number of branches borne well off the ground and not subject to breaking. The beans are medium or a little over in size, yellow; mature in about one hundred and twenty days; has made over thirty bushels per acre on large acreage. Sow about twenty pounds per acre.

**Wing's Mongol** This variety is very similar to Wing's Mikado, but matures about a week earlier. It has been remarkably successful in Missouri, but does very well in Indiana, Ohio and Pennsylvania, and other states. Aside from its earliness there is not much to choose from between this and the Mikado. The beans are yellow. Sow about twenty pounds per acre.



**Soy Bean, Wing's Mikado.**





Wing's Pedigreed Sable.

**Ito San** An old variety that we have grown for over fifteen years, and the best real early bean that we have found. Matures probably five days earlier than Mongol; is well adapted to Michigan and other states in that latitude; beans medium size, yellow. It branches reasonably well, stands erect and is a reasonably good yielder. Sow about twenty pounds per acre.

**Medium Green** An old variety that was highly recommended for years, but which is fast losing its popularity. This is the only variety we sell which is inclined to shatter, but this bean, while it yields heavily is very difficult to save for seed on account of this habit. It matures with our Mongol and is similar to it in type. Sow about twenty pounds per acre.

**Mammoth** We class this as a grain variety, although it will seldom mature grain north of the Ohio River. It is a good enough sort for plowing under, and south of the Ohio River it is an excellent grain variety; beans medium to large, yellow.

**Trial Ground's Beans** Each year we test certain new varieties in our grounds and usually we have a few bushels of each to sell. These are all good varieties, nearly good enough to catalogue. We offer these at uniform price of \$2.00 per bushel.

## FORAGE or DUAL PURPOSE BEANS

**Wing's Extra Select Sable** This remarkable dual purpose variety has brought out enthusiasm everywhere that we have sent it. The original stock which we called Sable pleased us very well, but our present stock, which we call Extra Select, is the progeny of special hand selected plants, every one of which was a heavy yielder. In our trial grounds the Extra Select has not only shown more desirable qualities, but also a yield of probably three bushels per acre more than the original Sable. The plants stand beautifully erect, branch very freely, the branches being very long and slender, heavily loaded with pods; is not inclined to lodge even on rich ground; beans smaller than the average in size, black, height three to five feet; a splendid bean for forage. Fifteen pounds seed is plenty for an acre. It matures with the Mikado.

**Wing's Pedigreed Sable** This bean is a selection from the Extra Select, and is the progeny of just two plants, selected from several years of comparative tests in our trial grounds. This bean not only possesses all of the desirable qualities of the Extra Select Sable, including its splendid, long branches, which by their slenderness adapt the plant to forage uses, but in our trial grounds and fields has outyielded the Extra Select Sable five bushels per acre. It matures with Mikado. Ten to fifteen pounds of seed is ample for an acre.

**Wing's Royal (new)** This is another selection from Wing's Extra Select Sable. We have never seen another bean that grew quite as tall as this one, while at the same time standing erect, except on very rich ground, and having such long, slender branches. Ordinarily, this bean will grow eight inches to a foot taller than the Extra Select Sable. On quite rich ground it will lodge. We do not recommend it as a grain variety, as we think it will make only a fair yield of grain. Our tests are not complete enough yet for us to be sure on this point. On fair soil this bean grows five to six feet tall for us. We offered it last year for the first time. Beans smaller than medium, requiring about twelve to fifteen pounds per acre. Beans black, medium size.

**Jet** This might be called a dual purpose bean, as it is moderately good in yield of grain, and is also an excellent forage bean; grows about the same height as the Sable, with somewhat similar habit of growth and similar branches, but will not stand rich ground without lodging; beans fully as large as the average Soy, black. This variety is well adapted to New York State and Michigan. It matures with the Mongol and is therefore one of our earliest varieties. Use about eighteen pounds seed per acre.

**Wilson** This is one of the very best forage beans, comparable to our Extra Select or Pedigreed Sable varieties. In Indiana it yields grain very well. In Ohio it ordinarily is inferior to our other grain varieties. In Pennsylvania and a number of states east, it yields grain fully as well as other grain varieties; matures with the Mikado; ordinarily grows a few inches taller than the Extra Select Sable, but does not branch quite as freely as that variety. Sow about eighteen pounds per acre.

Route No. 1,  
Middletown, Ohio,  
August 28, 1916.  
The Wing Seed Co.,  
Mechanicsburg, O.  
Dear Sirs:—I have given my copy of your catalogue away and now need another before fall seed time. May I have one?  
The Extra Select Sable Soy Beans purchased at your selection last spring are coming on, a continual joy and delight to the eye.  
I thank you very much for your selection. It gives me confidence to send another order in blank, if occasion seems to require it.  
Respectfully yours,  
J. LOWRY MILLER.



Wing's Royal Soy Bean.

# CLOVERS

**O**UR W. B. BRAND OF CLOVER is the very finest that can be purchased anywhere, and satisfies all purchasers. This year we are also going to sell a second grade of Clover in each variety, which, while free from dangerous weeds, will not be quite as fine in appearance as our W. B. Men who wish to save money whenever possible will find this lot of Clover to be interesting.

**Medium Red Clover** This is the common or medium clover, the one most universally grown throughout the country. On fertile soil and especially where hay is desired, it has only one superior, and that is Alfalfa.

**Mammoth Clover** For impoverished soils, or for pasturage, we think this variety excels the medium. On impoverished soils it does not grow too rank or coarse, and in a pasture it retains its greenness throughout the summer much better than the medium does and also furnishes a larger amount of forage. It is also better adapted to fertilizing the soil than the medium, as it grows much ranker and coarser, making more to plow under. It is not nearly so valuable for hay when grown on fertile soil as the medium, because it is too large and coarse.

**Alsike Clover** This plant ranks nearly as valuable as the medium for ordinary soils, and in special conditions is much better. The plants are smaller, and ordinarily it produces a somewhat lighter crop than the medium, but, as it is also much more closely eaten by stock, there is less waste. The quality of the hay is better. As the plant is a perennial, while the medium is a biennial, it makes more of a permanent meadow or pasture plant. It succeeds on impoverished soil or acid soil better than the medium, and on wet soil it is invaluable. It will not, of course, grow in water, but will stand more moisture than the other clovers. It is fibrous-rooted and will not heave out in winter.

**White Clover** This is the common little running clover found in most good pastures. Its chemical analysis shows it to be richer in protein than almost any other legume which we grow for forage. It is, of course, too small to grow for hay, but it is invaluable in all pastures, and no pasture mixture would be complete without it.

**Crimson Clover** Throughout many sections of the country this plant has accomplished wonders, principally in building up poor soils. Its usefulness is mostly confined to its fertilizing value, as the hay is not very well relished by stock, although if cut green it makes a fair quality of hay. In the Atlantic and Southern States its usefulness can hardly be overestimated, as it has redeemed thousands of impoverished fields at an extremely moderate expense. It is usually sown in the fall, allowed to come into bloom, which it does quite early in summer, then either cut for hay or plowed under, and another crop grown the same year. It could be sown in the spring, when it would mature a crop before fall.

## MELILOTUS, or SWEET CLOVER

It is rather pleasant to be progressive and have one's visions come true. When other seedsmen were barely mentioning this plant, we were giving up a page or two to it in our catalogue. As a matter of fact we congratulate ourselves that no farm crop of any importance has appeared ahead of our own development, and usually we have been a little bit ahead of the times. For a few years after we began pushing this seed, many farmers were skeptical concerning it and many of them even considered it a dangerous weed. Not only has this feeling very materially subsided today, but we believe the average farmer knows Melilotus to be a valuable plant and is thinking

about sowing some. Furthermore, in the beginning many of us considered it useful only as a fertilizing plant, while today it is coming to be recognized not only as one of the most extraordinary fertilizing plants in America, but as the most wonderful pasture plant we have.

I find it difficult to cure for hay and greatly prefer pasturing it rather than cutting for hay. No plant which I have ever used equals it for pasture. It will easily carry one beef steer per acre throughout, probably, the entire summer. It suffers less from drouth than any other plant I know of, except Alfalfa, and stock rarely bloat on it sufficiently to cause any trouble. During the past summer I have pastured for much of the summer seventy-five head of beef cattle on it. The results were entirely satisfactory to me. It is equally suited to pasture with hogs. Orchardists find it valuable as a cover crop and its use seems to be spreading quite constantly.

**Seeding Melilotus** We have seeded this plant almost every month in the year and have never failed with it. However, we prefer sowing either on top the ground during the winter, letting the frost cover the seed, or very early in the spring, sowing with one of the Alfalfa drills. In our experience it has been necessary to have plenty of moisture to germinate this seed, and that is why we prefer winter or early spring seeding. We have, however, seeded almost every month throughout the summer and consider it entirely practical to do this. Melilotus prefers a hard seed bed and a very scant covering of earth over it; just barely covered is the best. If covered an inch deep, much of it will not come up. It is like Alfalfa in absolutely requiring plenty of lime in the soil. It needs inoculation as badly as Alfalfa and this matter should not be neglected. Within the past year we have purchased a new machine called a "Scarifier," which simply sand-papers the seed, breaking up an impervious outside coat. Formerly we



**Melilotus Alba, 8 feet tall on land considered quite poor.**



experienced some difficulty with hard seed in *Melilotus* which probably lie in the ground probably a year before germinating. By the use of this new machine Experiment Station tests indicate that a perfect germination can be secured and in three days' time, instead of from five days to possibly a year with the hard seed.

Our trial grounds' experience would indicate that the scarified seed should not be sown until April, if you expect the best results; seeded prior to that time we had only fair stands. Seeded April 1st with scarified seed and the Alfalfa drill, ten pounds per acre is sufficient. If we wished to sow during the winter we would use unscarified seed. We can furnish either kind and make no difference in the price.

**Varieties** There are three common varieties of the *Melilotus*: *Melilotus Alba*, a white-flowered perennial, growing four to eight feet in height; *Melilotus Officinalis*, a yellow-flowered perennial, growing three to five feet; *Melilotus Indica*, a yellow-flowered annual, growing about one foot high. *Melilotus Alba* is, in our opinion, the best variety, although some people prefer *Officinalis* for hay. We think that the *Officinalis* probably is a little better for hay, but it makes somewhat less of it, is not so sturdy and vigorous, would not, in our opinion, make so much pasture nor nearly so much fertilizer. On that account we prefer to handle the *Melilotus Alba* and seldom have *Melilotus Officinalis* to offer.

*Melilotus Indica*, we think, is of so little value north of the Ohio River that we have discontinued selling it.

**Harvesting for Hay** As already stated we do not care much for *Melilotus* as a hay crop, although it may be used for this if desired. Harvested for this purpose you can get a light cutting the first year. This should probably be taken off in September, cutting it close, as you would any other meadow. The second year you may harvest a crop of hay about June 1st to 10th, when the plants are in bud but not in bloom. This crop must be cut at least a foot high, or else you kill the plants. It is difficult to cure this hay. My advice at this time is to cure it in the swath for one or two days. Rake when tough with dew, if possible, cure in windrow one or two days, and then in shock for a few days more. At the end of a week from time of cutting, if handled in this way and the weather is good, it should go into the barn without danger of spontaneous combustion.

**Harvesting for Seed** We have had some very unfavorable experiences in harvesting this plant for seed, and consider it the most difficult thing to do that we have ever undertaken in the field seed line. The proper method is to cut while the dew is on, preferably using a McCormick self-rake for this purpose, dropping the plants off in medium-sized bunches. We prefer not to touch these bunches until they are ready to thresh, which may be in a week's time or which may require longer after cutting. Either a threshing machine with a clover seed attachment or a Birdseed clover huller will do the work satisfactorily. The seed heats very easily, especially if any chaff or dirt is left in it. We have had it to start heating two hours after threshing, and we advise running it through a fanning mill immediately after threshed, then watch it for a week to see that it does not heat, and do not empty into a bin short of two weeks' time.

**Used as a Fertilizer Plant** Some of our customers have worn soil which they wish to renew with the minimum of labor. Those who have tried *Melilotus Alba*, seeded once and simply allowed to stand for three or four years, have been delighted with the process. The plants reseed themselves splendidly. Their decaying roots and tops rapidly restore the soil's fertility, and such land after being seeded down for three or four years will surprise the owner when plowed up and put into other crops.

Piqua, Ohio, July 22, 1914.

Wing Seed Co., Mechanicsburg, Ohio.

Gentlemen:—Several months ago I meant to write you giving additional details of our success with Sweet Clover. If you will remember it was in March a year ago that we seeded our wheat (30 acres) to Sweet Clover, following your advice. We met with much local criticism but said nothing. This spring when plowing for corn it was nothing to turn under roots of Sweet Clover thirty inches long. These we found out later rotted quickly, and through a number of very dry spells this summer our corn has shown the presence of plenty of moisture. Today we feel that we have one of the very best fields of corn to be seen, and it would be worth your time to see it should you be in this vicinity within the next few weeks.

I have seen so much adverse criticism of Sweet Clover in the farm papers that I wrote the "Ohio Farmer" regarding our experience, and they may publish it shortly.

Respectfully yours,

W. D. ASHTON.

## GRASSES

**T**HIS SUBJECT has, in our opinion, been neglected by the average American farmer. He has been deceived by some widely exploited new grasses which disappointed him, and sometimes he has tried new grasses of merit, but owing to conditions being unfavorable, drouth, improper seed bed, etc., total or partial failure has discouraged him. For a good many years we have been trying out various grasses which are not widely known. We find some of them to be extremely valuable and are now using them continually on our own farms. Our customers are also finding that the grasses which we like suit them, and are becoming as enthusiastic as we are. We would urge farmers generally to test some of these lesser used grasses, and believe that they will agree with us that they are far more meritorious than they ever supposed.



An old Blue Grass sod with one of our Dry Pasture Mixtures disked in. Contrast the new with the old, untreated part in the foreground.



## Bromus Inermis or Awnless Brome Grass

Perennial; height three to five feet. We consider this one of the most important grasses that has ever been introduced into the United States. It was brought in by the California Experiment Station fifteen years ago. We tested it at that time and immediately adopted it as a permanent feature of our farms, where it has remained ever since. For a few years we sold the seed, but in a short time all commercial samples became contaminated with quack grass and we then refused to handle it. Now, however, we have pedigreed seed grown each year from our own stock and running absolutely free from this pest. We therefore feel warranted in advising our customers to use it. This year the crop is almost a total failure and price necessarily high.

It has been used nearly all over the United States for pasture, and others are just as enthusiastic over it as we are, and next to Melilotus Alba, which, by the way, is a good companion crop, we think no other grass that we have equals it for this purpose. Stock dearly love it. It comes on early in spring, stays green all summer, and furnishes a wealth of feed. Where used extensively for pasture we would recommend sowing nothing but Bromus and Melilotus Alba together. If too many grasses are used the stock will pick out the Bromus and exterminate it. It is one of the very best grasses that we have used on low, wet or mucky grounds, where it yields enormously. It will stand some overflow of water without killing, and on the other hand it does admirably in dry soils, even the semi-arid states reporting very favorably on it. For hay it is fully equal to timothy and yields as much. We prefer sowing early in spring, using about ten pounds seed per acre. The seed must be sown by hand and it must be lightly covered.

**Blue Grass, Canada** Perennial; height ten to twelve inches. A less valuable grass than Kentucky Blue, but succeeds on soil too poor to sup-



Wing's Dry Pasture Mixture, June 4th. Some grass!

port the former variety. It is well relished by live stock, but produces considerable less feed per acre than the Kentucky Blue Grass does. Sow, if alone, about 40 lbs. per acre.

**Blue Grass, Kentucky** Perennial; height ten to fifteen inches. This plant needs little description. It is the common "June" Grass or Blue Grass found so universally over fertile soils in the Corn Belt, and is the natural pasture grass throughout these states. Sow, if alone, about forty pounds seed per acre.

**Fescue, Meadow** Perennial; height eighteen to twenty-four inches. A valuable grass, especially in pasture mixtures. It does well on low, rather wet soils and also on dry upland. It is well relished by live stock and will stand a reasonable amount of punishment. Sow about forty-five pounds per acre.

**Fescue, Tall Meadow** Perennial; height three to four feet. Very similar to Meadow Fescue, but grows somewhat taller, a little coarser, and stands adverse conditions a little better. Sow about thirty-five pounds per acre.

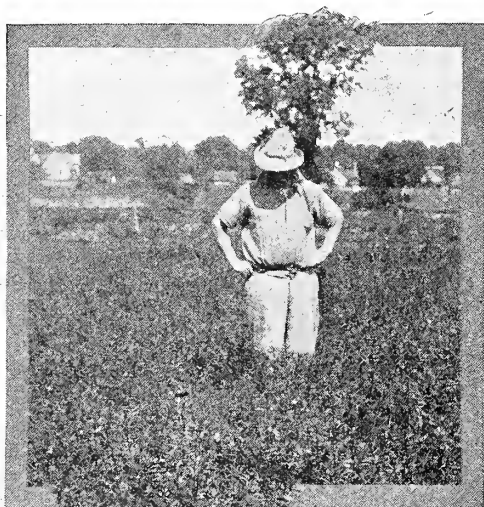
**Fescue, Sheep's** Perennial; height fifteen to twenty-four inches. A grass peculiarly adapted to pasture mixtures and to lawn mixtures, owing to its making a dense mass of foliage close to the ground and to its being well relished by live stock. Sow about thirty pounds per acre.

**Fescue, Hard** Perennial; height six to twenty inches. A grass used mostly in lawns for shady places. Closely resembles Sheep's Fescue. Sow about fifty to seventy pounds per acre.

**Orchard Grass** Perennial; height two to three feet.

This is a very necessary grass, although we do not consider it one of the most useful. It is necessary because it stands all kinds of punishment better than most of our other grasses do. It catches well on a poor seed bed, grows on the poorest soil, stands all sorts of tramping and drouth conditions, and yields an excellent amount of forage. On the other hand we have other grasses that are better relished by live stock; especially is this true when the Orchard Grass is allowed to become rank without being mown or pastured off. Frequently, when it becomes rank and woody, it will pay very well indeed to mow it, after which it immediately starts up fresh and succulent. It thrives better in shady places than any other grass we know of. Sow, if alone, twenty or twenty-five pounds per acre.

**Oat Grass, Tall Meadow** Perennial; height three to five feet. We have used this grass for many years; have liked it very well and



Same Dry Pasture Mixture, July 5th, just thirty days after cutting.



## PASTURE MIXTURES

For ten years we have worked in trial grounds and on our farms determining the best grasses to be used in mixtures. We have tried not to find simply a combination of cheap odds and ends that could be thrown together and which would naturally excite the derision of our customers, but we have made an effort to build up mixtures that would be the very best thing for the Corn Belt that could be devised. Each year we have learned more about them. Our first mixtures, well prepared theoretically, have been radically changed as the result of years of experience, and we now have mixtures which excite not only our own admiration, but that of everyone who sees them. Without meaning to do Kentucky Blue Grass, the great pasture plant of the Corn Belt, the slightest injustice, we all know that, measured in tons per acre, its production is invariably moderate; we know that if severely pastured it will be nearly killed out, and that in July or August, under heat and drouth, it withers and nearly dies. Our mixtures will, we believe, produce several times as many tons of feed per acre as Kentucky Blue Grass. They will be equally palatable, and every year, whether rain or drouth, they will stay green all summer. Furthermore, we believe we are scientifically combining deep-rooted grasses with shallow-rooted ones, thus using all the soil; that we are combining tall-growing ones with those that form a close compact sward, thus forming ideal pasture conditions. Finally, we combine the clovers in liberal quantity with the non-leguminous grasses, and thereby retain the soil's fertility, make a more-balanced ration and a much more nutritious diet than would be secured by the use of any one grass. The photographs which we show will bear us out in this theory, and the fact that we sell many thousand dollars' worth of these mixtures annually with scarcely ever a complaint, further bears us out. Our pasture mixtures all contain liberal amounts of clover, therefore they must be seeded not too late in the fall, although excellent results may be obtained by sowing in August or first of September. We prefer, however, that they be seeded either in April or in August. As they contain liberal amounts of light weight and large seeded grasses, such as Bromus Inermis and Tall Oat Grass, they must be sown by hand. They do well if sown with a light nurse crop of Barley in April. They will, under favorable conditions, make a moderate amount of pasture late the first fall, but will increase in usefulness until two or three years old. The first season they must be lightly pastured only.



**Wing's Dry Pasture Mixture, May 1st. A first-class bite.**  
(Children are sitting down.)

our customers are becoming very enthusiastic over it. Next to Bromus Inermis is about the way we would place it in value, and if it had the ability of running underground as the Bromus has, we would consider it fully as valuable as that plant. It does well on muck ground, thrives on poor or acid ground, stands tramping and heavy pasturing a good deal better than Bromus Inermis does. It stays more succulent and palatable throughout the entire season than Orchard Grass and is, in our opinion, a much more valuable grass. It must have, however, a good seed bed and be lightly covered when seeding. It makes as much hay as timothy and of about the same quality. Sow about forty pounds per acre.

**Rye Grass, English** Perennial; height twelve to twenty-four inches. A very necessary grass for use in mixtures, succeeding under very adverse soil conditions such as on poor, newly filled lawns, or dry, hard pastures where other grasses have a hard struggle for existence; comes on early in the spring, making a luxuriant growth of attractive and nutritious herbage. It does not remain permanently, and other grasses are always expected to gradually take its place in any mixture. Sow fifty to seventy pounds per acre.

**Red Top** Perennial; height one to two feet. This grass needs little description. It is excellently adapted to wet grounds and thrives fairly well on hard, poor soil. Sow about ten pounds per acre.

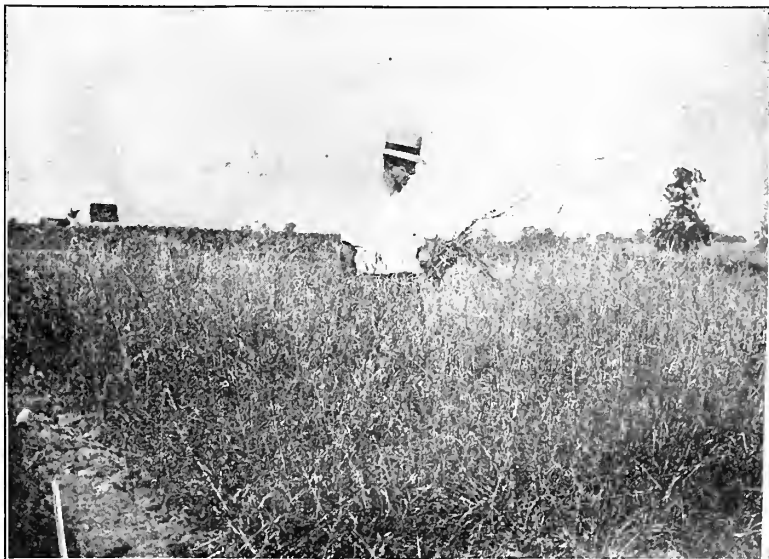
**Timothy** Perennial; height four to five feet. Too well known to need description. We handle what we believe to be the very best seed on market and seed that invariably gives satisfaction. Sow twelve pounds per acre.

**Bent Grass,** Perennial; height six to fifteen inches. A valuable

**Rhode Island** grass for lawns, succeeding well in shady places. Forms a rather slow growing, very fine leaved turf. Sow fifty to seventy pounds per acre.

**Bent Grass, Creeping** Perennial; height six to fifteen inches. A variety used for lawns and similar to Rhode Island. Sow fifty to seventy pounds per acre.

**Wood Meadow Grass** A variety used for lawns, especially for shady places. On account of the cost of the seed, other grasses somewhat superseded this variety. Aside from its expense it is very valuable.



**Stump Mixture.**



**Dry Pasture Mixture** This mixture is expected to be used either on rich or poor soil, and on any soil that has been reasonably well drained. It is not adapted to wet ground, but our designation of Dry Pasture simply means, adapted to drained soil. We recommend twenty pounds of this mixture per acre. It contains the following varieties of seed: Timothy, Mammoth Clover, White Clover, Melilotus, Orchard Grass, Tall Meadow Oats, Tall Fescue, Sheep's Fescue, Canada Blue Grass, Kentucky Blue Grass, English Rye Grass, Alfalfa and Bromus Inermis.

**Moist Pasture Mixture** This mixture is designed for wet grounds, or ground which overflows. We advise using twenty pounds seed per acre, sown in the same manner and at the same time as the Dry Pasture Mixture. This mixture contains Timothy, White Clover, Alsike, Medium Red Clover, Mammoth Clover, Melilotus, Kentucky Blue Grass, English Rye Grass, Meadow Fescue, Sheep's Fescue, Tall Fescue, Red Top, Orchard Grass, Tall Meadow Oat Grass and Bromus Inermis. The amounts of the various grasses are altered to give a preponderance of those which will stand wet conditions.

**Stump Mixture** Some of our customers want a mixture of grasses to sow on recently cleared land which cannot be plowed, and in many cases cannot even be harrowed. No mixture of grasses can be expected to do its best under these conditions, but from long experience we have been able to select certain ones which will succeed reasonably well, and we have combined these into our Stump Mixture. This mixture is composed of Orchard Grass, Medium Clover, Alsike, Melilotus, White Clover and English Rye Grass. Twenty-five pounds should be used per acre. If it were possible to harrow the ground, it would be much better to do so, but if it is impossible, you can count on fairly good results anyhow. We would sow this mixture about the first of April, using twenty-five pounds per acre.

## LAWN MIXTURES

**Preparing the Lawn** Sometimes in America we do things so hurriedly that we ask the impossible of our plants. Soil excavated from the cellar of a newly constructed house is about as barren by nature as the desert, yet we sometimes sow delicate Lawn Grass seeds on this harsh undecomposed and unaerated

soil, expecting the result to be a beautiful lawn. Sometimes the Lawn Grass achieves the impossible, but it is safer and better not to ask so much of it. When you make your fill and level off the lawn, if you will leave four inches of surface soil on the top, you will be very much more likely to succeed than if this precaution is not taken. If you cannot leave four inches, then leave two inches. If you cannot do this, then haul one inch of good, rich dirt and place over the top of your filled ground. Make the surface about as rich as convenient. Well-rotted manure is good if it does not contain weed seeds; bone meal is splendid; wood ashes are good; thoroughly air-slaked lime or ground limestone rock are excellent. Apply all of these materials liberally; the ground limestone at the rate of ten pounds for forty square feet. Work the ground until you have a perfect seed bed. Sow fifty to seventy pounds of Lawn Grass Mixture per acre; one and a half or two pounds per thousand square feet. Sow the seed evenly, going both ways and rake it in. Mow as frequently as necessary, using a sharp mower that will not pull the plants up. Best results, we think, will be obtained by sowing either early in April or about August first.

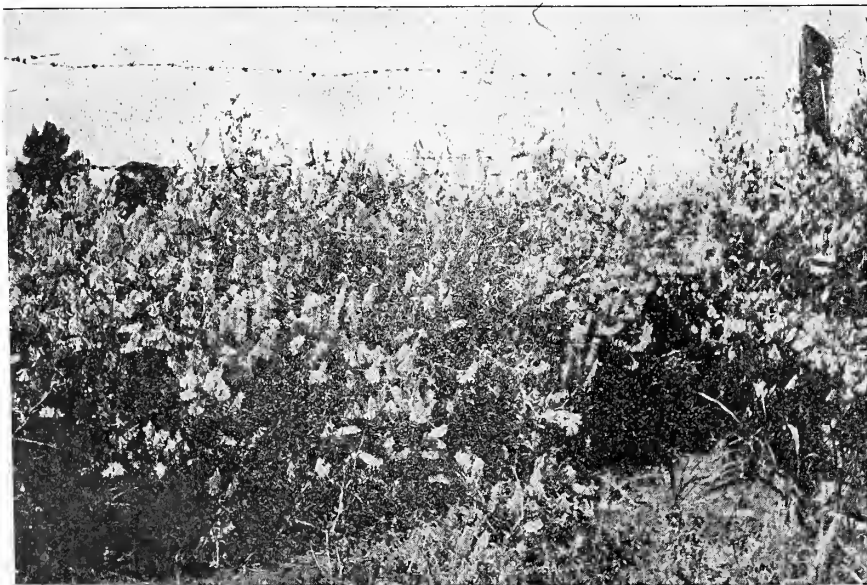
**Wing's Lawn Grass Mixture** For years we have worked with various Lawn Grasses and the mixture which we now prepare gives us, as well as our customers, excellent satisfaction. It is composed of the best of the fine-leaved, turf-forming grasses, the sorts that have given us the best results, as well as those recommended by the United States Government. Our regular mixture contains a small amount of white clover, but we can furnish this grass without the clover, if desired. We handle only one grade, the best. Sow fifty to seventy-five pounds per acre. **One Lb., 30c; 3 Lbs., 85c; 5 Lbs., \$1.35; 10 Lbs., \$2.65; 20 Lbs., \$5.25.** Postage extra up to 10 pounds. We prepay 10 pounds, or over.

**Shady Place Mixture** This mixture is adapted to any sort of shady place where an ordinary mixture will not thrive. The grasses composing it are rather high priced, and consequently our prices must be a little higher than for our ordinary mixture. Sow the same amount and in the same manner that you would our regular mixture. **One Lb., 40c; 5 Lbs., \$1.85; 10 Lbs., \$3.75; 20 Lbs., \$5.25.** Postage extra up to 10 pounds. We prepay 10 pounds, or over.

## VETCHES

**Vicia Villosa, Winter Vetch, Hairy or Sand Vetch** We have

worked with this plant now for over ten years and find it to be very useful. It fills a place which no other plant we know of does, that of winter cover crop which can be plowed under about May 10th in time for a corn crop. It thrives best, we find, on sandy soil, but we ordinarily do not have much trouble getting it to succeed on any soil we have, including our heaviest clays. The worst fault we have found with it so far has been that it did not produce seed satisfactorily. Ordinarily the seed comes from Russia, where it is produced in great abundance, the plants growing wild on great areas. There seems to be no good reason why it should not produce seed in America, but it has not made what we call satisfactory yields, the average being three or



**WINTER VETCH.**  
Plants in Full Bloom. (Courtesy of the Practical Farmer.)



four bushels per acre. As a cover crop and for plowing under the following spring, no other plant grown in the Corn Belt equals this one. By about May 10th the plants will be a tangled mass, the stalks three feet or over in length; and plowed under at that time we estimate that the plants will add to the soil fully ninety pounds of nitrogen per acre, enough to grow nearly ninety bushels of corn without drawing from the soil nitrogen at all. This plant is now being extensively used in orchards where Soy Beans are sown in the spring, cultivated all summer and followed with the Vetch, which is plowed under the following spring and again followed with Soy Beans. Winter Vetch is also an excellent pasture plant, giving late fall pasturage as well as early spring, and animals like it and thrive on it. It analyzes practically the same as Alfalfa and would doubtless make good hay, but in the United States has not been used much for this purpose.

**Seeding** Our best results have come from sowing this plant in August, giving it plenty of time to become established before winter. Some of our customers have reported good success sowing clear up into October. The plants are extremely hardy and retain many of their green leaves all winter. We have usually found thirty-five pounds of seed to be required and sometimes use forty pounds. We prefer sowing on a well-prepared seed bed, or sowing in the corn at last cultivation. We have tested sowing in corn without covering the seed at all, and in our trial grounds this succeeds nicely, so we think that if for any reason it is impossible for you to cover the seed, you can sow in the corn anyway and expect good results. We also sometimes sow this seed at the same time that we sow Soy Beans, using about twenty pounds Soy Beans and twenty pounds Winter Vetch mixed together. This method works well, making a good fertilizer to plow under after the Soys are removed and doing so at the minimum of cost. The Vetch grows slowly for the first few weeks and does not seem to mind the beans, which quickly grow away from it. Late in the fall when cool weather comes, the Vetch thrives much better and will frequently cover the ground by the time the Soys are ready to harvest.

**Inoculation** Winter Vetch frequently fails dismally if it is not inoculated. We did not succeed ourselves until we accidentally secured the inoculation, and we always recommend care in this matter in order to prevent failure. For the most part, at present, it is necessary to use the artificial cultures for this purpose, as few men have inoculated soil for sale. We can furnish the artificial cultures ourselves just as we do for any other legume.

**Harvesting for Seed** As far as we have been able to learn, there is only one really successful method in use today for harvesting this crop for seed. In the first place bear in mind that the Vetch is naturally recumbent and that a companion crop of grain must be grown with it in order to hold it off the ground. Rye, Speltz, Sweet Clover and Timothy have all been used for supporting the plants, and we have enthusiastic customers who believe in each one of these. An old Timothy sod, thoroughly disked and seeded to Winter Vetch, is said to make splendid conditions. Rye is probably used more than anything and works reasonably well. Sweet Clover should preferably be seeded in the spring, and the Vetch in the fall in order to have these two crops come together, and for ourselves we do not think we would like this combination, simply because the Sweet Clover seed itself is valuable and would not be ready to harvest at just the same time as the Vetch. When you come to cut the crop, it will probably be necessary to use a mowing machine and to have men follow the machine laying each swath (which will be pretty well tangled and tied together with the Vetch) over to one side where horses and machine will not run over it with the next swath. This may seem primitive, but apparently is the best way to do at present. Some loss may be expected from shattering, although our customers say that it is not necessary to have much. The seed is cured in shocks for a few weeks and then threshed out with an ordinary grain thresher. Care must be taken that it and its accompanying grain do not heat after being threshed, as this, of course, ruins the germination.

## WING'S SELECTED GRAINS

### BARLEY

**Champion Beardless** Modesty is one of our chief virtues, but some way it seems as if we have always been either first or mighty close to it on the good things in agriculture. Over fifteen years ago we read somewhere about Beardless Barley. We had been growing Oats for a nurse crop for Alfalfa and had found them unsatisfactory. We secured some of the Barley, and the very first crop delighted us so that we have used it continually ever since. Beardless Barley has stiffer straw than any oat; it stools less vigorously, has fewer leaves, and therefore does not crowd the young meadow so much, and finally, it comes off the ground for grain about July 12th, nearly a month before common varieties of oats. We have found really no comparison between oats and Beardless Barley as a nurse crop. As a grain, Beardless Barley has a feeding value about the same as corn. Hogs like it very well if it is soaked, or if ground and fed in connection with tankage or mill feed. It is not safe to feed to horses except in very small amounts. It makes good cow feed; is not very good for poultry. As a nurse crop sow three to five pecks per acre; for grain sow two bushels.

**Seed** Ever since we began growing Beardless Barley the stocks have contained a trace of beards. Of late years the percentage of beards increased for some reason or other rather rapidly, and three years ago we discovered that probably twenty per cent. of the stock was bearded. That year we went through a small field carefully, rogued it, pulling out nearly all of the beards by hand. We threshed this grain separately and sowed it last year in a field to itself. Unfortunately, harvesting conditions were such that we had great difficulty in saving the crop last

year so that our stock did not increase as much as it should. This year we have about half enough of this pure Barley to supply our trade. We are calling this Pure Beardless Barley, and we will be forced to list Common Beardless Barley of as good quality and as pure as we can buy, but it will not be strictly pure, while our own stock of Pure Barley will run about ninety-nine per cent. beardless.

### Wing's Pedigreed

**Beardless Barley No. 1** For several years we have been working to bring out a pure bred strain of Barley which would be worth while. Several years ago we made over 250 selection which we planted in rows to themselves; watched carefully and harvested each row separately. From the beginning one row in this selection stood out pre-eminently. This head yielded approximately thirty times its own weight. We have kept this absolutely pure and this year we harvested sufficient stock so that in 1918 we can place this Barley on market. Each year it is yielding thirty times its own weight, which means that, seeded one and a half bushels per acre, it should produce about seventy bushels per acre. Realizing, however, that test plots are not fields, we will cut this yield down and count on about one-half, say forty bushels per acre. Beardless Barley Common today is yielding an average of about twenty bushels. Do not ask us to sell any of this Pedigreed Barley this year, but watch for it in 1918.

**Comparison Between Bearded and Beardless Barley** Bearded Barley yields more heavily of grain than the Beardless does. It has a trifle weaker straw, but is still, in our opinion, preferable to oats





Oat variety plots in our Trial Grounds. A great many strains are tested and improved in this manner every year.

as a nurse crop. If we were to guess on the difference in the yield of grain, we would say that the Bearded would outyield the Beardless as much as ten bushels per acre.

**Wisconsin Pedigreed Barley** This variety is, as far as we can find, the heaviest yielding Bearded Barley grown anywhere in the Corn Belt. Our stocks come from the most reliable sources, and we believe are sure to give satisfaction. Sow for grain two bushels per acre.

## SEED OATS

We have worked over Seed Oats for many years, not only in our trial grounds, but in co-operation with the Experiment Stations. We have tested out everything that looked promising in the line of Seed Oats, and are still doing this, hoping to benefit our stocks by this method, but at this time the varieties which have been giving the best results at the Ohio Experiment Station are still the best in our trial grounds. These varieties are the Improved American, Siberian and Sixty-Day, and in a ten-year average test of twenty-one varieties these three stand at the top at Wooster.

**Improved American Oats** This variety is in some ways, we believe, the most important Oat that is grown in Ohio today. It has splendidly good strong straw, stands up well on the richest ground and yields very satisfactorily indeed. It is adaptable and thrives on nearly any kind of soil found in this state. Sow two bushels per acre.

**Siberian** At Wooster this variety has slightly outyielded the Improved American. It is, however, not quite as well adapted to very rich ground, the straw being a little weaker. It has given good satisfaction all over the state. Sow two bushels per acre.

**Sixty Day** This very valuable variety matures the earliest of any Oat grown in this state and for an early Oat it yields remarkably well. It is the best variety of any for a nurse crop, and ripening as early as it does, its grain frequently goes on to the market a week before other grain, thus bringing the maximum price. In yield of grain it is usually just a trifle below the Improved American. Sixty-Day Oats are, in our opinion, the best substitute when Barley is unobtainable as a nurse crop, and we recommend using them when you cannot get suitable Barley. As a nurse crop we would use one bushel per acre. For grain we would use  $1\frac{1}{2}$  to 2.

**Worthy** This is a single plant selection from the Improved American, and has been giving good satisfaction wherever tried. We have grown it this year for the first time on our own farms, and while conditions were very unfavorable for Oats here this season, this variety gave a very good account of itself and we will continue using it. Sow two bushels per acre.

## SEED WHEAT

Seventeen-year test at the Ohio Experiment Station would seem to have demonstrated that two varieties of Seed Wheat, the Poole and Gypsy, are best adapted to Ohio soils, as these two varieties have continually outyielded all others during this seventeen-year period.

**Gypsy Wheat** This is a bearded variety with lots of straw, but with such stiff straw that you need not worry even on rich bottom land about its lodging. It is extremely hardy, stands the winter almost like Rye and is a very heavy yielder. We grow our own seed, and our stocks will be found to be remarkably pure. Sow one and a half to two bushels per acre.

**Poole Wheat** Poole Wheat heads the list of smooth varieties. With us it has shorter straw than the Gypsy and less of it. Its straw is about as stiff as the Gypsy, and we have no trouble with its lodging. It stands the winters well and in every way is proving a very satisfactory variety for us. Sow two bushels per acre.

**Winter Rye** Too well known to need description. We handle the Common or Black Rye, which suits many of our customers, and in 1917 will have Wisconsin Pedigreed Rye also. This has been making very heavy yields, much better than Common Rye. We use, ordinarily, about one bushel seed per acre.

**Buckwheat, Japanese** This grain needs no description. We handle the best stocks that we can find, and our seed gives universal satisfaction. Sow one bushel per acre.

Dover, N. H., April 15, 1916.

The Wing Seed Co., Mechanicsburg, Ohio.

Dear Sirs:—Please send at once by express 60 pounds Mellilotus Indica. I am taking for granted that this is a hulled seed. Also send me one ounce of Cossack Alfalfa, and one ounce of Orenberg. The plants of Orenberg that I had from you last year have been under ice and water all winter, and are now starting growth. Each plant is throwing out from five to ten side branches, coming out of the ground about four inches from the original crown.

Yours truly, ASHTON ROLLINS.  
These plants seem to have two crowns. These side branches come from well under the ground and the original crown above ground is doing business. Will you please explain just what is going on.

A. R.



A 16-acre field of our Siberian Oats which yielded 810 bushels in 1915.



## MISCELLANEOUS FORAGE PLANTS

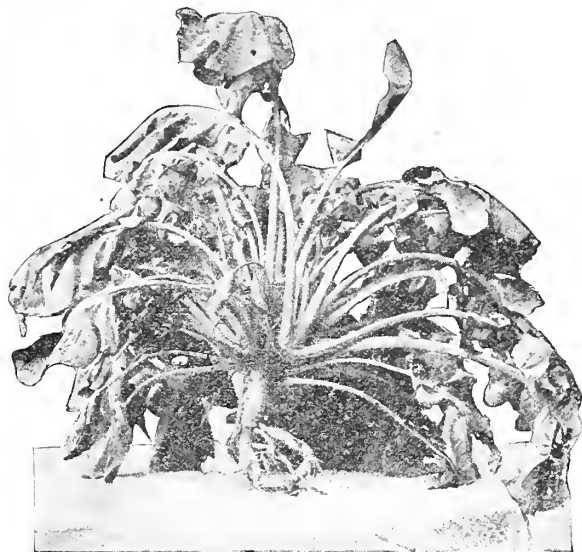
### DWARF ESSEX RAPE

This plant belongs to the cabbage family, tastes like and resembles cabbage, except that it forms no head. Its seed is very inexpensive, costing ordinarily only about 35c per acre. It grows well in standing corn, succeeds on almost any soil, and is so well relished, especially by hogs and sheep, that we rather wonder why more of it is not used. It is an extremely quick-maturing crop. Sown the first of April, it is ready to pasture before the first of June, and succeeding crops may follow as you wish clear up until frost. After being frozen hard it is unsafe to feed. The Dwarf Essex variety is biennial.

This plant should be sown on a well prepared seed bed, using three to five pounds seed per acre, the seed being lightly covered.

There are many varieties of Rape, including Dwarf Essex, Sowing Rape, Bird Seed Rape, Turnip Rape, and perhaps some others, and some of these are annuals which will form seed the first year and become a weed.

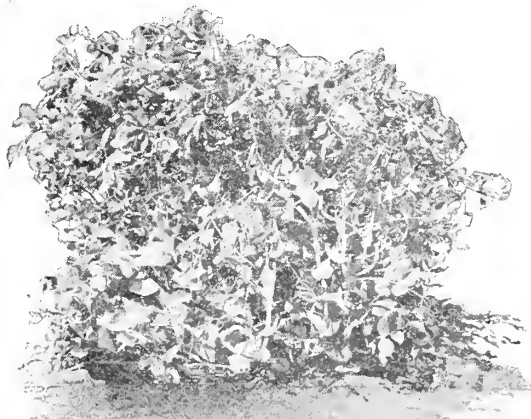
Dwarf Essex Rape will not blossom the first year, and in our climate winter kills, so that there is no danger of its becoming a weed. Ordinarily, we obtain our Rape Seed from Holland, but since the war the Dutch government has embargoed this seed and will not allow it to leave the country. This has wrought considerable confusion in the trade and has been instrumental in causing a good deal of impure seed to be sold. During the past summer we have made very careful tests of all the principal lots of seed which are on market, including Turnip Rape, Dwarf Essex and Imported Sowing Rape. The stocks of both Dwarf Essex and Imported Sowing Rape now come almost entirely from Japan, France and England, and the price of the seed varies greatly, the French and English seed costing about double what the Japanese does. Our tests proved conclusively that Turnip Rape is a nuisance which must be avoided; that Dwarf Essex is certainly superior to the Imported Sowing Rape; that the poorest results from Dwarf Essex Rape are obtained from the Japanese seed, the French and English seed being apparently worth much more than the difference in their cost. After learning this we contracted for a moderate amount of French and English seed. The English seems to be a little better than the French and costs a little more. Apparently it is worth every bit that it costs, and we are this year handling all three grades, the Japanese, French and English seed. The highest priced seed is, in our opinion, a little cheaper in the end than the cheap seed is.



Dwarf Essex Rape.

### CANADA FIELD PEAS

Most of our readers already know this plant fairly well, but it should be of greater importance than it is, as we consider it one of the best forage plants for very early spring use. Its seed should be sown in March for best results, as it dearly loves cold weather. Some of our best results are obtained by scattering the seed on top of the ground and plowing under to a depth of about four inches. In connection with this plant Oats are usually grown and sometimes Spring Vetch and Dwarf Essex Rape. When properly handled Canada Peas should grow four to five feet tall, produce an abundance of forage, and later on some peas. We find it important to use good seed, as the accompanying illustration will show. The larger plant is grown from our best stock, the kind that we always sell; the other plant is grown from cheaper seed, composed largely of hybrids. This seed has a rather muddy appearance, and the result of this test is apparent to anyone from our photographs. We advise using one bushel Canada Field



Good seeds always pay. The Canada Field Pea plant at the right is produced from our white seed, such as we always sell, while the smaller plants at the left grow from hybrid seed, which is much cheaper than ours and obviously much inferior.

Peas, one bushel Oats per acre, and if Rape is added, we would use five pounds Rape. The crop should be ready to pasture about May 15th, or to reach about its full growth by the middle of June to the first of July. At this time it makes an excellent soiling crop. It is sometimes cut for hay, but is rather difficult to cure.

## COW PEAS

These plants are practically always used either for fertilizer or for hay. As a fertilizing crop they are inferior to Soy Beans; that is, their analysis is lower, carrying a smaller per cent. of nitrogen, but it rather seems as if they do a little better in thick standing corn than Soy Beans do and therefore, in this respect they are better. As a hay plant, especially for the South, they are to be recommended. It is rather difficult to cure them, but they make excellent nourishing feed. They are more recumbent in their nature than Soy Beans, and therefore more difficult to harvest. We are ordinarily able to furnish three varieties.

**Michigan Favorite** This Pea has given the very best of results in Northern Ohio and similar latitudes, being early, hardy and quick maturing. Sow one and a half to two bushels per acre; time of planting, immediately after corn planting.

**Whippoorwill** This is a standard variety all over the Corn Belt as well as Southern states. It is nearly as quick maturing as the Michigan Favorite and produces forage very well indeed. Sow one and a half to two bushels per acre; time, immediately after corn planting.

**Brabham** This new Cow Pea is, in our opinion, the most valuable one that we have ever tested out, and we certainly have tried a large number. It grows the most erect of any variety that we know; produces an abundance of forage; is much more easily harvested than any other variety we know. It also appears to be an excellent yielder of seed. The seed is so small that it requires only about half as much of it as of Whippoorwill. It matures in about the same time as Whippoorwill.

## SORGHUM

This plant has been grown for years, both for its syrup and for its forage. We handle the Early Amber variety, which is well adapted to both purposes. When grown for syrup it should be sown solid, using seventy-five to one hundred pounds seed per acre. Handled in this way the stalks are small and slender, very leafy, and the yield per acre is very large. The feeding value is about the same as that of corn stover. It may be placed in shocks after harvest, where it will keep for several weeks. The stock relish it, probably, a little better than they do corn stover. It should not be harvested until reasonably ripe. It should be sown immediately after corn planting time. It is dangerous to pasture Sorghum, but it is perfectly safe to feed when cut.

## MILLETS

**Japanese Millet** This is the tallest growing and coarsest variety of Millet that we handle. Our illustration shows the comparative sizes of the different varieties, and also a comparison with Sorghum and Sudan Grass. A great many of our customers prefer the Japanese to any other form of Millet. It is economical, requiring only ten or twelve pounds seed per acre, and it is a good yielder.

**German or Golden Millet** Tennessee grown. This variety is next to the Japanese in coarseness; by our tests makes as heavy a yield



Testing Sorghum, Sudan Grass and the Millets in our Trial Grounds.

as the Japanese does. The best seed necessarily comes from Tennessee, and such seed always commands a somewhat higher price than seed grown elsewhere. Sow about fifty pounds seed per acre any time between May 1st and June 15th.

**Hungarian Millet** This is the smallest and earliest maturing variety that we handle. It makes hay of the finest quality of any Millet, but with us produces less of it than the other varieties. It may be sown clear up to the middle of August. Use about forty-eight pounds seed per acre.

## SUDAN GRASS

This plant has simply sprung into prominence, especially in the Southwest, as a forage plant. In the Southwest it makes two or three cuttings of hay per season. Its production is very heavy and stock are said to like the hay very well. Our illustration shows the comparative size of it when grown alongside of the Millets and of Sorghum. Its stalk is about as coarse as Japanese Millet. It is an economical plant to grow, requiring only about three pounds of seed per acre, and would rather seem to be destined to supplant the Millets. It is a near relative of the Sorghums, and the seed has to be grown with great care, because it is easily contaminated by the Sorghum. Our stock is grown for us on contract in territory widely separated from any Sorghum. It is also very frequently contaminated by Johnson Grass, which it closely resembles. Our seed is grown in territory free from Johnson Grass. It is sown in drills three and a half feet wide like corn, being planted just after corn planting. It tillers remarkably, and one plant will cover a circle fifteen or perhaps eighteen inches in diameter, and produce very many stalks.

Where you wish the smallest amount of seed possible to be used, sow three pounds per acre. Better results, in our opinion, are obtainable with a larger amount. Anywhere from five to fifteen or twenty pounds is preferable. If sown in drills three feet wide and cultivated, probably five or six pounds would do. If sown in narrower drills or broadcast, probably fifteen to twenty pounds should be used. Cover the seed lightly; sow on a well-prepared seed bed immediately after corn planting time.

Westport, Conn., August 28, 1916.

The Wing Seed Co., Mechanicsburg, Ohio.

Dear Sirs:—Please send me ten pounds of the Grimm Alfalfa seed by the quickest route. Will send you a check as soon as I receive the goods. The seed that I bought of you last August has done fine. Have cut it twice, and it is now two feet high, and will cut it the third time. How is that for the first season? It is clean and free from all other grasses or weeds. It has been the show piece of this section all summer and people have come to see it for miles around.

Respectfully,

W. H. SMITH,  
R. F. D. No. 11, Cross High Way.

The Dunham Co., Berea, Ohio, are manufacturers of the Cult-Packer. They publish a 48-page book, called "Soil Sense," illustrated with fifty field photographs, showing preparation and cultivation of soil. If you will write to them, asking for Booklet W. S., they will be glad to send you a copy.



SEED.	Sow (if alone), per Acre.	Weight per Bush. Lbs.
Alfalfa (Medicago Sativa).....	20 lbs.	60
Alsike or Hybrid Clover (Trifolium Hybridum).....	8 to 12 lbs.	60
Awless Brome Grass (Bromus Inermis).....	10 lbs.	14
Beans, Soy (Glycine Hispida).....	¾ to 1 bu.	60
Bent Grass.....	1 bu.	14
Buckwheat, Japanese.....	2 bu.	52
Barley, Champion Beardless (Sow for nurse crop 3 to 5 pks.).....	1½ bu. to 2 bu.	48
Barley, Wisconsin Pedigreed.....	40 lbs.	48
Canada Blue Grass (Poa Compressa).....	40 lbs.	14
Corn.....	9 lbs.	56
Canada Field Peas.....	1 to 2 bu.	60
Clovers.....	8 to 15 lbs.	60
Crimson or Scarlet Clover (Trifolium Incarnatum).....	14 to 20 lbs.	60
Cow Peas (Vigna Unguiculata).....	¾ to 2 bu.	60
English or Perennial Rye Grass (Lolium Perenne).....	20 to 25 lbs.	14
German or Golden Millet.....	50 lbs.	50
Grasses, Various.....	48 lbs.	14
Hungarian Millet.....	48 lbs.	48
Japanese Millet (In drills 10 to 12 lbs.).....	Broadcast 15 lbs.	40
Kentucky Blue Grass (Poa Pratensis).....	40 lbs.	14
Meadow Fescue (Festuca Pratensis).....	55 lbs.	22
Orchard Grass (Dactylis Glomerata).....	20 to 25 lbs.	14
Oats (Avena Sativa).....	2 to 3 bu.	32
Pasture Mixture, Dry.....	18 to 20 lbs.	.....
Pasture Mixture, Moist.....	18 to 20 lbs.	.....
Peas, Canada Field.....	1 to 2 bu.	60
Peas, Cow (Vigna Unguiculata).....	¾ to 2 bu.	60
Red Clover (Trifolium Pratense).....	10 to 15 lbs.	60
Red Top (Agrostis Vulgaris).....	8 to 12 lbs.	14
Rape, True Dwarf Essex (Brassica Napus).....	3 to 8 lbs.	.....
Rye (Sow for nurse crop 3 to 5 pks.).....	1½ bu.	56
Sheep's Fescue (Festuca Ovina).....	30 lbs.	12
Sudan Grass.....	3 to 20 lbs.	.....
Sugar Cane or Sorghum.....	2 to 100 lbs.; ordinarily 15 to 20 lbs.	.....
Sweet Clover (Melilotus).....	20 to 25 lbs.	60
Tall Meadow Oat Grass (Arrhenatherum Avenaceum).....	40 to 50 lbs.	10
Tall Meadow Fescue (Festuca Elatior).....	35 lbs.	14
Timothy (Phleum Pratense).....	10 to 15 lbs.	45
Vetches, Spring (Vicia Sativa).....	50 to 75 lbs.	60
Vetches, Winter (Vicia Villosa).....	40 to 50 lbs.	60
Wheat (Triticum Sativum).....	2 to 2½ bu.	60
White Clover (Trifolium Repens).....	8 lbs.	60

## PRICE LIST OF BOOKS

(All quotations are postpaid.)

### Books on Agriculture, Farming and Special Farm Crops

**Alfalfa in America** By Joseph E. Wing, 480 pages, cloth. Price, \$2.00 postpaid.

The most modern, comprehensive, practical and valuable work on Alfalfa ever written. The writer had much experience with the plant, growing it on his own farm and observing it in every state in which it can be grown. The book treats of the history, varieties and habits of Alfalfa; describes the conditions required by the plant and how to produce them where they do not exist naturally; tells how to prepare the soil; how to sow, care for and harvest the plant, the proper tools to use; how to erect suitable buildings for storing the hay. It describes the enemies of Alfalfa and how to combat them and discusses the soil in its relation to Alfalfa, its different constituents, and what fertilizers to use.

**Alfalfa** By F. D. Coburn, 400 pages, cloth. Price, \$2.00, postpaid. This is a standard work on Alfalfa growing by a well known authority; a very valuable book. It covers the ground thoroughly, discussing at length the plant, its culture and uses.

**Alfalfa** By F. D. Coburn, 160 pages, cloth. Price, 50 cents, postpaid. This book covers the same ground as the larger one by the same author, but in a condensed form.

**Farm Grasses of the United States** By Spillman, 248 pages, cloth, \$1.00. This book covers every grass of any importance grown in the United States and shows its proper place in American agriculture.

**Book of Corn, The** By Herbert Myrick, 372 pages, \$1.50. This book is written by a large number of the world's corn experts. It is comprehensive and complete.

**Book of Vetch, The** By Wm. C. Smith, 157 pages, cloth. Price, \$1.25, postpaid. All

we need to say about this book is, that taken in connection with our own modest article in this catalogue, it contains practically all that is known about the Vetches today. The writer has had large experience with this plant, and values it as highly as we do ourselves.

**Feeds and Feeding** By W. A. Henry, 613 pages, cloth. New edition just out.

Price, \$2.25, postpaid. This book is a cyclopedia of animal nutrition and rational feeding of farm animals. It shows how plants grow and elaborate food for animals, the functions of different nutrients, the production of flesh, fat and energy, how to calculate rations for farm animals. It gives the food values of the different feeding stuffs, the grains and grasses, mill and factory by-products. It sets forth the results of the tests of American and European experiment stations in feeding farm animals.

**First Principles of Soil Fertility** By Alfred Vivian, 265 pages, cloth, \$1.00, postpaid. In this book the author has given the gist of the very important subject of soil fertility in plain language, particularly devoid of technical and scientific terms. It is pre-eminently a "first book" and will be found especially valuable to those who desire an introduction to the subject and who intend to do subsequent reading. The book is nicely illustrated.

**In Foreign Fields** By Joseph E. Wing, 549 pages, cloth. Price, \$1.50, postpaid. In 1911 Mr. Wing was sent over a large amount of South American territory to collect wool statistics for the Tariff Board. "In Foreign Fields" gives in entertaining form the varied experiences which he had while on this trip, and also useful comment upon farm conditions as compared with our own.

**Meadows and Pastures** By Joseph E. Wing, 418 pages, cloth. Price, \$1.50, postpaid. Describes the best methods of making and maintaining meadows and pastures. Contains full descriptions and illustrations of all the agricultural grasses, with directions for planting and caring for them when established. Profusely illustrated and beautifully printed.

**Soil Fertility and Permanent Agriculture** By C. G. Hopkins, 653 pages, cloth. Price, \$2.70, postpaid. If there is anything you want to know about feeding, consult "Feeds and Feeding" above. If there is anything you want to know about soils, consult this book. It is the most scientific and complete and at the same time easily understood book on soil fertility that we have ever seen. It tells what soils are composed of, what food plants require, the effect upon soils of different fertilizers, different plants and different rotations, and clearly explains why these things are so. It is so tabulated and compiled that a busy man can ascertain anything that he wants to know in the minimum amount of time.

## BOOKS ON VEGETABLES

**Asparagus** By F. M. Hexamer, 174 pages, cloth, 50c. This is the first book published in America exclusively devoted to this subject. The author not only shows how easy it is to grow the crop, but gives full instructions for the entire handling of it, with an appeal for the more general use of this delicious vegetable.

**Bailey's Principles of Vegetable Gardening** A very comprehensive and practical treatise on garden making. Tells how to lay out the ground, how to manage hothouses and frames, how to grow, market and store all vegetable crops. The book is nicely illustrated, copy-righted, and contains 450 pages of valuable information. Cloth, price, \$1.50.

**Cabbage, Cauliflower and Allied Vegetables** By C. L. Allen, 128 pages, cloth, 50c. The author has had a lifetime's experience with these plants. This book treats very fully on the requirements and proper method of cultivating and general management of the entire cabbage crop.

**Culinary Herbs** By M. G. Kains, 150 pages, cloth, 75c. This is the only book we know of devoted to this class of plants. The writer, who thoroughly understands the subject, not only tells how to grow the most popular varieties of herbs used in America and Europe, but how to make money out of them, and how to use them to the best advantage in your own family.

**Celery Culture** By W. B. Beattie, 150 pages, cloth, 50c. A book both for beginners and experts, containing the most complete information for handling crop, either in a small or large way. Detailed instructions for every phase of this work.

**Home Vegetable Garden, The** By Adolph Kruhm, cloth, \$1.00. A book both for the beginner and small home gardener, and also for commercial gardeners. Absolutely

**Story of the Soil** By C. G. Hopkins, 350 pages, cloth. Price, \$1.62, postpaid. Dr. Hopkins, in giving us this book, has done inestimable good to permanent agriculture. This book gives simply, clearly and with remarkable logic, fundamental principles and theories which must be understood and applied to every soil in the country. It covers the entire ground, giving full scientific reasons for every deduction, but giving them in such a clear and easily comprehended form, that anyone can understand it.

**Soiling Crops and the Silo** By Thomas Shaw, 364 pages, cloth, \$1.50. The simplest and most comprehensive book that has ever been written on this subject.

**The Book of Wheat** By Peter Tracy Dondlinger, 370 pages, cloth, \$2.00. This is an exhaustive treatise covering thoroughly the entire subject of wheat production, containing the most up-to-date and practical information on cultivation, harvesting, improvement, fertilizing, etc.

up-to-date and full of valuable information, both as regards proper methods and also a valuable discussion as to very best varieties.

**Melon Culture** By James Troop, 100 pages, cloth, 50c. This is a comprehensive book, giving full cultural instructions as well as descriptions of most varieties now under cultivation.

**Weeds of the Farm and Garden** By L. H. Pammel, 300 pages, cloth, \$1.50. Weeds cause a loss of several hundred million dollars annually in the United

States. This book tells how to treat and remove them. Suitable for any farmer, gardener, or park superintendent.

**Mushroom Growing** By Duggar, 260 pages, \$1.50. The most complete and up-to-date book on this subject in America. Anyone interested in growing this crop should certainly have this valuable work.

**New Onion Culture, The** By T. Greiner, 140 pages, cloth, 50c. This thoroughly up-to-date book tells exhaustively of the new methods of growing onions, and also in order to enable the reader to compare it thoroughly, describes the old method.

**Peas and Pea Culture** By Glenn C. Sevey, 120 pages, cloth, 50c. This valuable little book gives in a condensed but complete form, everything that either the student or practical farmer needs to know about handling this crop.

**Tomato Culture** By Will W. Tracy, 150 pages, cloth, 50c. This book is invaluable for the man who wants the latest and most complete information on this subject. It is comprehensive and complete.

**Vegetable Gardening** By R. L. Watts, 550 pages, cloth, \$1.75. This is a thoroughly complete, up-to-date book, adapted either to small or large growers. It gives not only a general discussion of proper methods for growing all classes of vegetables, but specific instructions with regard to all the important varieties.

## BOOKS ON GROWING FLOWERS

**The Garden You and I** By Mabel Osgood Wright. A delightful book by the author of "The Garden of a Commuter's Wife." Instructions for growing all kinds of outdoor plants, the preparing of the seed bed, the proper placing of the different kinds, are told in a series of letters from "Barbara" to her friend, "Mary Penrose," who wishes to beautify her home, and whose "family pocketbook" has collapsed. A pretty story runs throughout the book, and there are many humorous and delightful happenings. Price, \$1.50.

**A Plea for Hardy Plants** By J. Williamson Elliott. This most helpful and inspiring book will appeal to every garden maker. It is full

of sensible and practical suggestions. It is very comprehensive, thoroughly covering the subject of hardy plants, their use and the best methods of growing them. It is splendidly illustrated. Considering its mechanical perfection, the price is ridiculously small. Price, \$1.60, net.

**Practical Flower Garden, The** By Helena Rutherford Ely. In this charming book Mrs. Ely gives complete and practical instructions for the culture of all the important flowers. In her lucid and delightful style she tells her experiences in her own gardens, where grow all the flowers she describes. The book is beautifully gotten up, with eight colored plates and many other illustrations, and would make a splendid gift. Cloth, 12 mo., postpaid, \$2.16.





## FLOWER SEEDS, PLANTS AND BULBS

**O**UR FLOWER SEEDS, PLANTS AND BULBS have been selected from the choicest offerings of the greatest specialists in America and Europe. They are of the finest quality, and we are certain that no better can be found anywhere. We find that there is quite a wide range of variation in Flower Seeds as well as in Vegetable and Field Seeds, some strains being much better than others. In our trial grounds we have tested the strains of many different growers in all varieties which we offer, and have selected the best. These we have grown on contract for us by the world's greatest experts, both in America and Europe.

We are particularly proud of our bulbs. Each year we test out in the trial grounds hundreds of the best varieties procured from every available source, both American and European. Both the labor and expense of these tests is considerable, but it enables us to offer our customers just the cream of everything, and we do not consider the effort wasted.

Articles marked with an asterisk (\*) have been ordered in import, and are offered subject to our receiving the stocks. All others we have in the house. **We prepay prices on all Flower Seeds.**

### NOVELTIES AND SPECIALTIES

**\*ANTIRRHINUM, GOLDEN MORN**—Intermediate, 12 to 18 inches. Coloring very soft and beautiful, buff-yellow tinted mauve and pink. Pkt., 10c.

**ANTIRRHINUM, MAUVE QUEEN**—Intermediate, 12 to 18 inches. Very large lilac flowers borne in very long full spikes. Pkt., 15c.

**AQUILEGIA, MRS. ELLIOTT'S LONG SPURRED HYBRIDS**—A magnificent strain with very large, long spurred flowers of wonderfully beautiful coloring. Foliage small and graceful. Pkt., 25c.

**HELIOTROPE, MADAME BRUANT**—This is the most remarkable of all the Heliotropes. It is a dwarf variety, not more than 12 or 15 inches. Is very vigorous, very branching, very compact. It blooms abundantly for a long time. The flowers are violet-blue with white center. Pkt., 15c.

**LUPINUS POLYPHYLLUS**—Fine perennial. Plants in tufts with numerous stems and leaves of glistening green. Height, 4 feet. Flowers in magnificent spikes one and one-fourth feet in length. These plants may be used in borders with superb effect, and remarkable groups may be formed from the different varieties.

**SOMERSET**—Pure yellow. Pkt., 10c.

**PHYLLIS KELWAY**—Rose. Pkt., 10c.

**KELWAY'S PURPLE**—Deep purple. Pkt., 10c.

**MOERHEIMI**—White. Pkt., 10c.

**MIXED**—All colors. Pkt., 10c.

**\*LYCHNIS ARKWRIGHTII**—A very valuable new perennial, having the upright habit of *Lychnis Chalcedonica*, but with larger flowers in many new and beautiful colors, making a very lasting and brilliant display in the border. Very easily grown from seed which may be started under glass or in the open ground. The colors are white, flesh, scarlet and shades of rose. Pkt., 25c.

**PANSY, BATH'S EMPRESS**—A magnificent strain. Large flowers with ruffled edges, in rich and striking colors. Pkt., 25c.

**\*PRIMROSE, WILSON'S NEW BLUE**—This beautiful new Primrose comes in shades of blue and lavender, in distinct and beautiful contrast to the other varieties. It is quite hardy. The treatment is the same as for the yellow Primrose or the hardy Polyanthus, and it blooms with them. Seed sown in the spring will begin to bloom early the following year. Mixed, shades of blue and lavender. Pkt., 25c.

### NEW SWEET PEAS

**BOADICEA**—Giant opal-pink delicately suffused pale cat-telya-mauve. Flowers of great size and substance, beautifully waved. Very strong grower with abundance of four bloom sprays. Pkt., 25c.

**CHEERFUL**—Beautiful and distinct, light apricot and mauve on a cream ground. Robust, free flowering, plenty of four-flowered sprays. Pkt., 15c.

**FAIR MAID**—Apricot and flesh on cream ground. Pkt., 15c.

**LORD FISHER**—Very large rich red-maroon without a tinge of purple. Distinct from any variety in commerce. A strong grower, giving four flowers to a stem. Pkt., 15c.

**LOUVAIN**—White ground edged pale rose. Fine exhibition flower. Pkt., 15c.

**MINNA BARNABY**—Cream-pink with lemon ground, having a bright shrimp-pink band around edge. Beautiful for bunching and exhibition. Pkt., 15c.

**MRS. E. WRIGHT**—One of the most charming Sweet Peas ever introduced. Ground color is white, slightly flushed mauve and distinctly edged blue; wings very distinctly frilled. Flowers very sweet scented, and very effective when bunched. An abundance of four bloom sprays. Pkt., 25c.

**IMPROVED MRS. ROUTZAHN**—A giant creamy-pink, with the graceful habit and beautiful waved flowers of its parent. Pkt., 10c; Oz., 30c.

**SURPRISE**—Plant very vigorous, free flowering, throwing an abundance of four-bloomed sprays. Large satiny frilled flowers of rich shrimp-pink. Pkt. of 12 seeds, 25c.



A Portion of Our Trial Grounds. Asters in the Foreground.

## New Early Flowering Long Season Spencers

The introducer of these fine novelties states that they begin to bloom exactly 106 days after planting the seed in the open ground; that one of their chief characteristics is their long season period of blooming, as they commonly stay in full bloom for four full months.

**EARLY MORNING STAR**—We put this novelty at the beginning of our list because we think it the best and most distinct. The color is a deep orange-scarlet or flame color in standard with rich orange-pink wings. The flower is practically the same color as "Thomas Stevenson." It does not burn badly out in the open and under glass will be magnificent. The flowers are large and of best Spencer form and borne in threes and fours in wonderful profusion. Pkt., 25c.

**EARLY SONG BIRD**—We are sure this will be the leading pale pink for florists. The flower is the same color as "Florence Morse Spencer" and "Lady Evelyn Eyre," and a bit lighter than "Elfrida Pearson." It has the same excellent form and features of "Mrs. Hugh Dickson," but is on white ground. Pkt., 25c.

**EARLY MELODY**—This is a deeper shade of pink than "Early Song Bird" on white ground, closely resembling "Countess Spencer," and near "Hercules." It might be described as rose-pink on white ground. Pkt., 25c.

**EARLY SPRING MAID**—The color is light pink on a cream ground, and the blossoms have the same splendid characteristics of "Mrs. Hugh Dickson" for a florist's flower. Pkt., 25c.

**EARLY SNOWFLAKE**—This is the best early flowering white seeded white Spencer we have seen. The blossoms are very large and of the best waved Spencer form. The flowers are borne in wonderful profusion on long stems. Pkt., 25c.

## NEW GLADIOLI

(For General List of Gladioli see page 88.)

GLADIOLI PRICES ARE PREPAID

**ANTOINETTE**—White, delicately suffused bright rose, with a little fleck of Rose Hermosa on tips of petals. Throat at bottom washed Rose Neyron. Stigmas pale Rose Neyron. Anthers usually lilac. Petals obovate; flowers bell type; petals round and recurved. Flower  $3\frac{1}{2}$  inches. Very fine and showy. Each, 35c; \$3.50 doz.

**AZALEA**—Beautiful pure white, very softly suffused rose on tips of petals. Petals very well ruffled; three lower with brilliant crimson-carmine blotch, shading into deepest amaranth on midrib. Three and three-quarter inches in diameter. Fine. Each, 20c; \$2.00 dozen.

**BADENIA**—True lavender, feathered darker. Throat streaked velvety violet-purple, almost black. Orchid type. Three inches. This flower attracted great attention wherever shown, its color being absolutely unique. It reproduces so slowly that it can never be cheap. Each, \$1.00.

**\*BARONNE DE IVOLEY**—Beautiful pure white. Lower petals amber-white in throat; anthers amber-white or lilac-white. Reverse of petals touched with rose Neyron at bottom of throat. Stigmas pure white. Petals slightly ruffled, obovate. Flower bell type. Three inches in diameter. Many flowers open at one time. Not large, but fine. Each, 50c; \$5.00 dozen.

**BERTREX**—Pure white with pale lilac flecks near edge of petals. Reddish-violet lines in throat, forming very small blotch. Anthers lilac. Flower very well opened. Four inches, Trifle ruffled. Elegantly placed. Very fine texture. 30c each; \$3.00 dozen.

**BLACK PANSY**—Ground brilliant currant-red, overlaid velvety purple-brown. Wire edge around outer edge of all petals rosy-white. Throat in lower petals nearly black. Upper petals, deep in throat, vermilion. Anthers purple-garnet. Stigmas currant-red, tipped rose-white. Heavy texture. Three and one-fourth inches. Orchid type. Very distinct and well named. 25c each; \$2.50 doz.

**BLERIOT**—Ashes of Roses. Throat carmine-yellow, sanded with carmine. Three inches. Compact spike. Well opened flower of unusual and beautiful rich shade like oak leaves in autumn. Good for funerals. Each, 20c; \$2.00 dozen.

**DAYTONA**—Sage tint, pale slaty-green. Blotch yellow-green with some Parma violet in throat and around the blotch. Very unusual colors. Three and three-quarter inches. Well opened. Stems curved and graceful. This variety is unusually striking and very well liked wherever shown. Each, 50c; \$5.00 dozen.

**\*DEUIL DE ST. PIERRE (Sorrow of St. Peter)**—Salmon-lilac. Outer edge of petals suffused with Parma violet and somewhat flaked bluish-lilac. Small magenta blotch. Three and one-half inches. Unusual colors; attractive. Each, 25c; \$2.50 dozen.

**\*EMILE AUBRUN**—Rose Begonia (deep cerise); suffused carmine-lake. Three lower petals blotched carmine-purple. Flowers well opened; petals broad. Three and one-half inches in diameter. Coloring warm. Spike tall and vigorous. This royal flower must be seen to be appreciated. We have nothing nobler in our collection. Each, 50c; \$5.00 dozen.



**EVELYN KIRTLAND**—Light rose, paler in throat. Mid-rib pure white, except in throat of three lower petals. Lower petals heavily washed carmine-lake. Orchid type. Petals lanceolate. Spike medium density. Flowers three and one-half inches. The effect of this flower is both dainty and bright, and it wins highest approval wherever shown. Each, 40c; \$4.00 dozen.

**FILLE DE FRANCE**—Pure white with a few tiny flakes pale rose Nilsson at outer edge of petals. Reverse of petals pale violet-lilac, which gives a very pale suffusion to the inside of petals by reflection. Delicately penciled throat, faintly illumined delicate amber. Anthers lilac. Edges of petals beautifully rolled and moderately ruffled. Flower triangular. Three inches. Very well placed. Plants sturdy and vigorous. Large spike. Each, 35c; \$3.50 dozen.

**MADAME DE VILMORIN**—Rose Eglantine; flaked carmine-lake. Small amaranth blotch. Flowers somewhat tubular like an opening rose bud. Two and one-half inches. Excellent spike. Splendid. 25c each; \$2.50 dozen.

**MRS. W. E. FRYER**—Lincoln-red, almost without markings. Deep in throat, some crimson lines alternating with white. Petals broad and rounded. Three inches. Flower nicely opened. A splendid red. A strong plant and good spike. 25c each; \$2.50 dozen.

**PRINCE OF INDIA**—A very weird flower. Pale reddish-lilac. Upper petal and tips of lower petals with a peculiar golden sheen, very noticeable in bright sunlight. Strangely contrasting blotch on lower petal, cream-white sanded deep salmon-pink, and lined geranium-red. Surface of flower somewhat spotted dusky violet-lilac. Three inches. 25c each; \$2.50 dozen.

**RED EMPEROR**—Glistening cardinal-red, lighter on upper than lower petals, with a little faint reticulation of white in throat. Flowers well opened. Regal. Probably the finest red in existence, its only objection, in our mind, being that it reproduces so slowly that it must necessarily be high priced. 75c each.

**SIBERIE**—Fleshy-white, a little mingled with rose (very soft and beautiful combination of colors). Lower petals lemon-yellow with small spot of amaranth. Sutures at base of petals stained amaranth. Anthers dull violet. Petals large, broad and rounded. Spike tall and strong. An unusual and very beautiful variety. Four inches. Bell type; a little ruffled. 30c each; \$3.00 dozen.

**WHITE GLORY**—White. Wonderfully ruffled petals. Throat Ageratum-blue surrounded by pale yellowish flesh. Anthers grayish-violet. Three inches. Very compact, robust spike. A new and very valuable white. 60c each; \$6.00 dozen.

Varieties marked with an asterisk (\*) are imported and quoted subject to arrival. One bulb of each of these varieties totals \$6.90. We will supply one each of this entire collection at \$6.25.

## \*Tuberous Rooted Begonias

### ONE OF OUR LEADERS

Plants of surpassing beauty and elegance, very useful for decorative purposes, and of the easiest culture. The plants are usually from nine to eighteen inches in



Begonia Crispa.



Double Tuberous Rooted Begonia.

height, and branching; the leaves of elegant form, bright green, and abundant, about five inches in length. The perfectly formed waxen flowers are usually three to five, often seven, inches in diameter. There is no plant more easily grown. They may be planted in pots or porch boxes (for which they are especially good), or in beds; if the latter, it is imperative that a very moist situation be chosen and that it be partially shaded. When planted in pots or boxes, use good soil (the addition of a little Bone Meal, one part to fifty of soil, will be good), keep them well watered and they will grow like weeds, and be covered with bloom all summer and autumn. They can stand surprisingly hard frosts without injury.

**SINGLE BEGONIAS**—In the single kinds the golden centers add much to the beauty of the flowers. Scarlet, White, Rose, Salmon, Copper, Yellow. Each, 8c, postpaid. One bulb each of the above colors, 40c, postpaid.

**DOUBLE BEGONIAS**—Flowers very full. Red, Orange, White, Rose, Copper, Yellow. Each, 15c, postpaid. Set of six colors, 80c, postpaid.

**FRILLED BEGONIAS (Begonia Crispa)**—In this race the petals of the single flowers are not only strongly waved but the borders are finely frimbriated, giving to the flowers a particularly elegant and graceful appearance. Vivid Red, White, Rose, Salmon, Yellow. Each, 15c, postpaid. Set of five colors, 70c, postpaid.

**BEARDED BEGONIAS (Begonia Cristata)**—This singular strain also has large single flowers. In the center of each petal is a large and conspicuous crest, giving to the flowers a curious and elegant appearance. Red, Orange, Rose, White, Salmon, Yellow. Each, 20c, postpaid. Set of six colors, \$1.00, postpaid.

## \*Hanging Basket Begonias

An entirely new and decidedly worth-while plant, different from anything ever before offered. The Hanging Basket Begonia was one of the features of the recent European Horticultural Shows. They are tuberous-rooted and just as easily grown as the others, but they differ from them in having long, slender, drooping stems from a foot to a foot and a half in length, and smaller flowers. The flowers are produced in large clusters, are more loosely constructed, and have sharply pointed petals, somewhat suggesting the Fuchsia. Two or three tubers planted in a good sized pot or basket will give an effect surprisingly beautiful, something that everybody notices. Red, Orange, Yellow, Salmon, Rose. Each, 30c, postpaid. Set of five, \$1.25, postpaid.





Peony-Flowered.

## ASTERS

**Culture**—Seed may be sown outdoors in spring as soon as the ground is warm and dry, or for earlier blooming, may be started indoors or in a cold frame, and transplanted to open ground after danger from frost is over. For most varieties, the rows should be eighteen inches apart with a distance between plants of sixteen inches. In dry weather, a thorough watering two or three times a week is desirable.

**W. B. MIXED ASTERS**—We build this mixture ourselves, using a large variety including both early and late seed, all of the different colors, and the different types of Asters. It includes named varieties that are of the very best, and in fact it is just as good as we know how to make any mixture. The most fastidious taste will be pleased with the flowers produced from this seed. Pkt., 10c;  $\frac{1}{2}$  Oz., 30c.

**QUEEN OF THE MARKET**—The standard early Aster. Plants eighteen inches high, of graceful spreading habit, strong and hardy. The flattish flowers are good sized, borne on long, graceful stems and of a wide range of colors. Profuse bloomer, very good for early cut flowers. If started in the house, they will bloom the middle of July; sown outdoors, early in August. **Mixed Colors**—Pkt., 5c;  $\frac{1}{4}$  Oz., 20c.

**BRANCHING COMET**—In the Comet type, the petals are long, narrow, gracefully twisted and curled, forming a most artistic flower. Our seed is from a superior strain of Branching Comet, with strong plants two feet high, bearing many large flowers of great beauty. It is a midseason variety. **Mixed**—Pkt., 10c;  $\frac{1}{2}$  Oz., 20c;  $\frac{1}{4}$  Oz., 35c.

**GIANT OSTRICH PLUME**—A magnificent class, rivalling the Chrysanthemums. Plants branching and of medium height. The flowers are borne on long, slender stems, and are of the Comet type, but much larger, often four to six inches in diameter, and produced much more profusely. The petals are longer, narrower and more twists. **Mixed**—Pkt., 10c;  $\frac{1}{2}$  Oz., 25c.

**VICK'S PERFECTION**—Splendid, erect midseason Aster. Flowers average four inches in diameter, and when first opened the entire flower is strongly whorled. The broad petals are slightly folded lengthwise, making them appear long and narrow. Plants are strong and vigorous, with strong stems and very broad, dark green leaves. Plants carry about twelve large flowers on long stems free from side branches. **Mixed**—Pkt., 10c.

**ROSE PERFECTION**—Plant with the same long, slender stemmed habit as the White Perfection. Flowers of bright rose and with the same pronounced twist to the petals. Pkt., 10c.

**BLUSH PERFECTION**—Plant similar in habit to White Perfection, but with more slender stems; flowers extremely delicate shade of flesh-pink. Pkt., 10c.

**SHELL PINK PERFECTION**—The Shell Pink Perfection makes a tall, slender growth similar to the Blush Perfection, but the flowers are beautiful shell-pink distinctly deeper than the Blush Perfection. Pkt., 10c.

**CRIMSON PERFECTION**—Pkt., 10c.

**LAVENDER PERFECTION**—Beautiful light lavender. Pkt., 10c.

**PURPLE PERFECTION**—Rich purple with beautiful shadings. Pkt., 10c.

**PEONY-FLOWERED**—Midseason to late. Remarkable for the brilliant colors. Habit upright, height two feet. The large, beautiful flowers have incurved petals and form almost perfect globes, many of them being bicolor, having white center, while the outer petals are of rose, violet, etc. **Mixed**—Pkt., 10c;  $\frac{1}{2}$  Oz., 25c.

**VICK'S LATE BRANCHING**—Flowers are of extraordinary size, borne on stems fifteen to twenty inches long. The plants often cover a space two and a half feet square. They begin blooming about August 15th if sown outdoors, but may be made to bloom earlier by starting seed in the house in March or April. They yield profusely. **Mixed**—Pkt., 10c;  $\frac{1}{2}$  Oz., 20c;  $\frac{1}{4}$  Oz., 35c. Separate colors—White, Shell Pink, Lavender, Rose, Crimson, Claret, Rosy-Carmine, Purple, Dark Violet, Lady Roosevelt (deep rose). Each, Pkt., 10c;  $\frac{1}{2}$  Oz., 25c.

**VICK'S EARLY BRANCHING**—The plants are similar to the Late Branching, but the large, perfect flowers come ten days to two weeks earlier. White, Rose, Lavender, Shell-Pink, Purple, Dark Violet. Each, Pkt., 10c. **Mixed**—Pkt., 10c;  $\frac{1}{2}$  Oz., 25c.

**ROYAL**—A charming new Aster, early midseason, coming soon after Queen of the Market and ahead of the Late Branching. The plants are very graceful, strong and vigorous, resembling the Late Branching, but not so tall, branching close to the ground. The flowers are of the size of the Late Branching. The petals are broad, incurved or shell-shaped, giving a lovely effect of shading. This is considered by many to be the best general purpose Aster, its vigor enabling it to stand conditions that would be sure death to other kinds. White, Shell-Pink, Lavender-Pink, Lavender, Purple. **Mixed**—Each, Pkt., 10c;  $\frac{1}{2}$  Oz., 25c.

## SINGLE ASTERS

Single Asters are very artistic, very effective grown in masses, and fine bedders. **SINGLE ASTERS**—White, Light Blue, Dark Blue, Lavender, Crimson. **Mixed**—Each, Pkt., 5c.



Branching Aster.





Daybreak.

**DAYBREAK**—The beautiful Daybreak class is early mid-season. The plants are upright and bushy, eighteen inches high. The flowers are globe shaped, two and one-half to three inches in diameter, quaint and lovely, produced in such profusion as to almost cover the plants. A valuable bedding variety. **DAYBREAK**—Pale flesh pink. Pkt., 10c. **PURITY**—Snow-white. Pkt., 10c. **SUNRISE**—A little deeper pink than Daybreak, with needle-like petals. Pkt., 15c. **SUNSET**—Delicate soft pink, deeper in center. Pkt., 15c. **SALMON**—A new and most exquisite color, quite distinct, being a pale shade of pinkish-salmon. Pkt., 10c. **BLUEBIRD**—Beautiful azure-blue. Pkt., 10c.

**VICK'S MIKADO**—One of the earliest of the midseason varieties. Plants of medium height, branching habit, long, stiff stems. Great fluffy flowers of the Comet type, with long, narrow, gracefully reflexed petals, of great substance. One of the best for cut flowers; a good keeper and shipper. **White, Rose, Violet, Shell-Pink, Lavender. Mixed**—Each, Pkt., 10c; ½ Oz., 25c.

**VICK'S ROCHESTER**—The official flower of the city of Rochester, New York. A midseason Aster, a variety of Mikado, and the largest Aster in cultivation. Plants about eighteen inches high, unusually vigorous, sometimes with a dozen long graceful stems to a plant. Flowers four and one-half to six inches in diameter, with long, narrow twisted petals, of exquisite lavender-pink. Pkt., 10c.

**VICK'S LAVENDER GEM**—Blossoms between Queen of the Market and the midseason Asters. Plants erect, about eighteen inches high, branching close to the ground. Flowers average four inches in diameter, of the Ostrich Plume type, with a large proportion of partly tubular florets, giving to the flower the appearance of a ragged Chrysanthemum. In color it is a beautiful pale-lavender, deepening with age. Pkt., 10c.

**BRANCHING PEERLESS PINK**—Blossoms just a little ahead of the other Late Branching, but has the same characteristics. Perfect double flowers of pale shell-pink, delicate and beautiful. Pkt., 10c.

**BRANCHING PEACH BLOSSOM**—A splendid Late Branching variety. Plants non-lateral, few long, graceful stems, crowned by very double flowers. Pkt., 10c.

**VICK'S PINK ENCHANTRESS**—A wonderfully beautiful variety, between midseason and late. Plants upright, tall and strong. Flowers are as large as the Late Branching, color of the "Pink Enchantress" Carnation. The petals are medium length, broad and loosely arranged, giving a soft and pleasing effect, which adds much to the charm of the delicately colored flowers. The blossoms are very lasting. It is a good variety to grow under glass. Pkt., 10c.

**BRANCHING SCARLET GEM**—A very effective bedding variety. Plants of the branching type. The color is

the nearest approach to true scarlet that has been produced in Asters. The flowers are larger than that of the Cardinal, not so double, and of a brighter, more fiery color. Pkt., 10c.

**VICK'S AUTUMN GLORY**—The last of the Asters to bloom. New, very late Branching Aster, coming after the others are past their prime. Plants large and strong, flowers large and perfectly formed, color pure soft shell-pink. Pkt., 10c.

**CREGO PINK**—Beautiful late Aster of the Hohenzollern Comet type. The plants have the size of the Late Branching, and the same habit, growing two to two and a half feet high. Flowers four to five inches across, with long, beautifully curled petals. The color, which is the distinctive feature, is different from that of any other Aster, and is best described as pure shell-pink. Everyone should grow this Aster; it is considered by some growers the most beautiful of all. Pkt., 10c.

**SHELL-PINK ROCHESTER**—This new Aster is similar to the original Rochester in habit and type of flower, but in color it is a lovely shell-pink. Pkt., 10c.

**CARDINAL**—Splendid bedding Aster, with a long season of bloom. The buds are rosy-carmine, flowers brilliant glowing cardinal, fading to deep crimson. A bed of these is brilliant and beautiful in the sunlight. Pkt., 10c.

## KING ASTERS

A very striking and handsome class. The King Asters bloom with the Late Branching, and the plants are similar in habit, but have exceptionally long stems; they attain a height of two and a half feet. The very large flowers are distinct, and different from any other variety, being composed of long, narrow petals folded lengthwise, giving a quilled appearance to the flower. They are of great substance, and last longer when cut than almost any other Aster.

**VICK'S VIOLET KING**—Immense flower, very full and thick, center of freshly opened flowers twisted into strong whorl. Color rich violet-purple. Pkt., 10c.

**VICK'S ROSE KING**—Differs from Violet King in color only, being a deep brilliant rose. Pkt., 10c.

**VICK'S WHITE KING**—Pure white. Pkt., 10c.

**VICK'S SHELL-PINK KING**—(New.) Soft pleasing blush-pink. Pkt., 10c.

**VICK'S CRIMSON KING**—A strikingly handsome Aster, in color rich and brilliant crimson. Pkt., 10c.



Vick's Pink Enchantress.





Ageratum.

## ACROLINIUM

**ROSEUM**—A beautiful everlasting. The flowers, measuring an inch across and of very pretty form, are composed of dry scales of a pretty satiny-rose in color, surrounding a flat yellow disk. Two feet. Sow outdoors in spring. Pkt., 5c.

**ROSEUM FLORE ALBO**—A white flowered variety. Pkt., 5c.

## ADLUMIA CIRRHOSA

(Allegheny Vine)

A graceful climber, hardy perennial, with finely cut foliage of lively green and oddly shaped tubular flowers of soft rose. This vine does best in shade or partial shade. Ten feet. Pkt., 10c.

## AGERATUM

Hardy annual. One of the best summer blooming plants, beginning to flower early and continuing until heavy frost. These plants do best in hot sun, and can stand poor soil. The tiny flowers are assembled in almost globe-shaped clusters, forming a many branched corymb. Leaves rough and hairy. Sow under glass early or outdoors as soon as ground is warm.

**AGERATUM MEXICANUM**—Plants one and one-half to three feet tall, flowers soft sky-blue. Pkt., 5c; ¼ Oz., 10c.

**BLUE PERFECTION**—The deepest blue Ageratum. Plants nine inches tall. Splendid clusters of flowers forming dense half globes. Pkt., 5c; Oz., 25c.

**LITTLE BLUE STAR**—A charming new variety. The plants are not over four or five inches in height, and the small light blue flowers are produced in great profusion. Pkt., 10c.

## AMARANTHUS

Robust annuals, very showy in the garden. They make charming specimens when grown in small pots under glass.

**CAUDATUS (Love-Lies-Bleeding)**—Plant three feet in height. Foliage lively green, the very small flowers disposed on cylindrical spikes, which form branching, drooping panicles, amaranth in color. Pkt., 5c.

**TRICOLOR (Joseph's Coat)**—Two and one-half feet. Color of foliage remarkable; the young leaves are deep carmine and transparent bright yellow, the older leaves deep crimson tipped green, both with bright green stems. Flowers very small and numerous, disposed along the stem. Pkt., 5c.

**SALICIFOLIUS (Fountain Plant)**—Three feet. The plants form pyramids of willow-like drooping foliage, at first greenish-brown, changing to bright red. Pkt., 5c.

**AMARANTHUS MIXED**—Pkt., 5c.

## SWEET ALYSSUM

One of the best annuals for edging, neat, thrifty and healthy. The grayish-green foliage is very finely cut. The tiny white fragrant flowers are arranged in clusters, compact at first, then elongated. A continuous bloomer until late frost. For borders sow in open ground in spring; for winter bloom sow late in August.

**ALYSSUM MARITIMUM (Sweet Alyssum)**—Of trailing habit, one foot in length. Pkt., 5c; ½ Oz., 15c; Oz., 25c.

**LITTLE GEM**—Compact growth. Six inches high. Pkt., 5c; ½ Oz., 20c; Oz., 35c.

**CARPET OF SNOW**—This beautiful little plant is very dwarf and forms a close mat completely covering the ground. Pkt., 10c; ¼ Oz., 25c; ½ Oz., 40c; Oz., 75c.

## AMMOBIUM

A pretty white Everlasting. Plant covered with silky, silvery hairs; stiff, branching, winged stems. Leaves all from the root. Flowers one inch in diameter, formed of pearly-white scales around a conical yellow disk. Sow outdoors in spring. It does best in sandy soil. Two and one-half feet. Pkt., 5c.

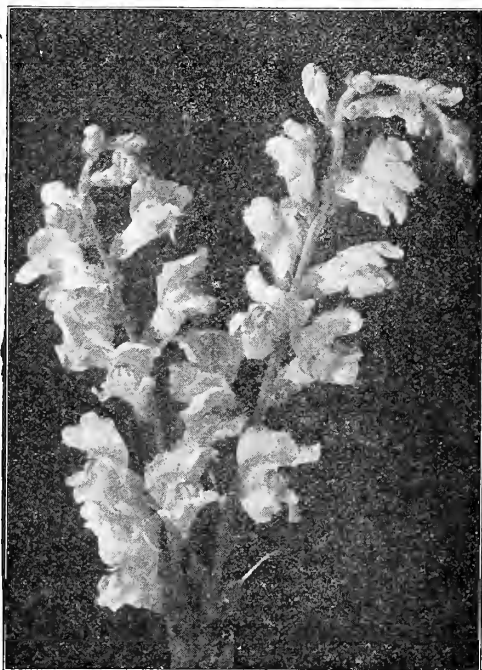
## ANTIRRHINUM (Snapdragon)

The beautiful new hybrid Antirrhinums are vastly superior to the old-fashioned "Snapdragon." They are very healthy, free blooming over a long season, easily grown, and not affected by heat and drought. They are perennial in the South and not hardy in the North, but may be grown as annuals, blooming in July from spring-sown seed. The plants are smooth, branching from the base, one and one-half feet in height, very husby. The rich spikes of brilliant, curiously shaped flowers are borne well above the handsome, glossy, dark green leaves. The flowers are twice the size of the old varieties, from one and one-half to two inches in length, with large tubes and two-lipped border. For early flowers, sow under glass in warm, moderately enriched soil. For summer blooming, sow outdoors in spring.

**TALL VARIETIES**—**Brilliant Queen**, bright crimson; **Delfance**, bright scarlet; **White Queen**, pure white; **Fairy Queen**, salmon-pink and white; **Delicate**, soft pale rose and white; **Galathee**, scarlet and white; **Bright Rose**; **Pure Yellow**; **Carmine**; **Mahogany**. Each, Pkt., 10c. **Tall Mixed**—Pkt., 10c; ¼ Oz., 20c.

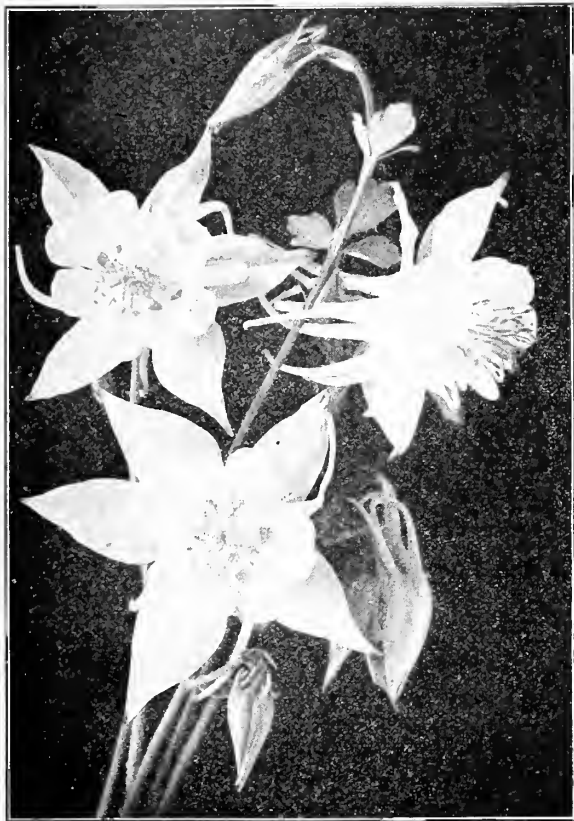
**INTERMEDIATE VARIETIES**—Twelve to eighteen inches in height. **Aurora**, coppery-red; **Bonfire**, orange scarlet; **Black Prince**, fine dark crimson with dark foliage; **Daphne**, carmine with white throat; **Mont Blanc**, white; **The Bride**, white turning rose; **Golden Morn**, buff-yellow tinted mauve and pink; **Rose**. Each, Pkt., 10c. **Mauve Queen** (new), lilac, 15c; **Mixed**, Pkt., 10c; ¼ Oz., 20c.

**TOM THUMB VARIETIES**—**Crimson**, **Rose**, **Snowflake**. Each, Pkt., 10c. **Mixed**, Pkt., 10c; ¼ Oz., 15c.



Antirrhinum.





Aquilegia.

## AQUILEGIA

(Columbine)

A beautiful hardy perennial blooming profusely through May and June. The plants are very graceful, the foliage is ornamental enough in itself to justify the existence of the plant. The gray-green leaves grow from the root in tufts. The beautiful and graceful pendant flowers are borne on slender stems well above the foliage. The calyx has five colored sepals, the corolla five petals, cornucopia-shaped and prolonged into spurs. The colors are white, purple, violet, rose, lilac, mauve, salmon and yellow, the flowers variegated, striped, bordered or tipped with a second color.

**COERULEA (Rocky Mountain Blue Columbine)**—One of our most beautiful native flowers. Sepals deep blue, petals white. Plants three feet high, very graceful, with light foliage. Pkt., 10c.

**ROSE QUEEN**—Beautiful long spurred flowers of white and delicate rose, with yellow anthers. Pkt., 15c.

**CHRYSANTHA**—Blooms later than Coerulea, and has smaller leaves. The stems are very slender. The flowers are very large, long spurred, bright yellow in color. Three feet. Pkt., 10c.

**MRS. ELLIOTT'S LONG SPURRED HYBRIDS**—(See novelties.)

**CLEMATAQUILA or SPURLESS AQUILEGIA**—A new strain. The plants are delicate and graceful, with small foliage and pretty, spurless flowers resembling those of the Clematis. The colors are blue, pink, purple, black, lavender, blush-white, rose, pure white and violet. Mixed, Pkt., 10c.

**SINGLE MIXED AQUILEGIA**—All colors. Pkt., 5c; ¼ Oz., 10c.

**DOUBLE MIXED**—All colors. Pkt., 5c; ¼ Oz., 15c.

## ARABIS ALPINA

A hardy perennial six inches in height. One of the earliest flowers to bloom in the spring. The blossoms, which resemble those of Sweet Alyssum, are very fragrant and completely cover the plant. It is of the easiest culture, and one of the best plants for rock work. It requires some protection in winter. Pkt., 5c.

## ARCTOTIS GRANDIS

**BLUE-EYED AFRICAN DAISY**—A very attractive annual, fine for cutting, and easily grown, blooming from early summer until hard freezing weather. Plants two and one-half to three feet tall, bushy, with silvery, deeply cut foliage. Daisy-like flowers two and one-half inches across, having narrow rays, white with lilac reverse, around a disk of clear blue, with yellow zone. This pretty plant deserves to be grown more frequently. Sow outdoors in spring. Pkt., 5c.

## ARGEMONE (Prickly Poppy)

Tender annual. A very decorative plant and easily grown. Plants grow three feet tall, are very branching, and cover a space of three to four feet. The prickly, thistle-like leaves and the seed pods are silvery-green. The lovely flowers are like single poppies with crinkled petals, snow-white and of various shades of yellow, with a mass of golden stamens, surrounding an amaranth-colored pistil. Sow outdoors in spring. Pkt., 10c.

## BALLOON VINE (Cardiospermum)

A graceful, quick-growing annual climber, with tiny white flowers and pretty fern-like foliage, followed by curiously inflated seed vessels, from which the name is derived. The foliage is pretty in bouquets. Six feet. Pkt., 5c; Oz., 20c.

## DOUBLE BALSAM (Touch-me-not)

Plants very strong and vigorous, very bushy, one and one-half to two feet high. The beautiful double flowers are borne in the axils of the lanceolate leaves, in the greatest profusion, forming massive spikes, in very pure and brilliant shades of crimson, fiery-red, lilac, chamois, flesh, violet, carmine and white, many of the flowers being beautifully marked and spotted with another color.

**DOUBLE CAMELIA-FLOWERED**—White, Rose Scarlet, Mixed, all colors. Each, Pkt., 5c; ¼ Oz., 15c. Imported collection of Double Camellia-Flowered Balsams, six varieties, 25c.

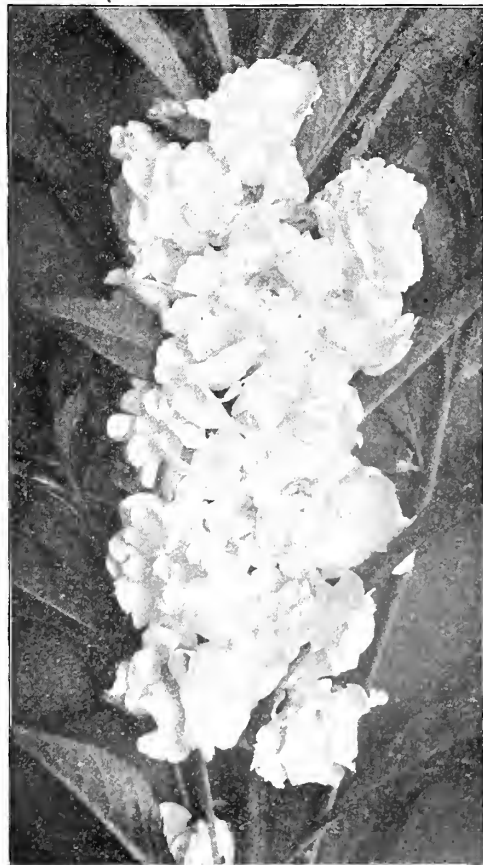
## BARTONIA AUREA

Hardy annual, twelve inches in height. Pretty five petaled flowers two inches across, clear golden-yellow with touch of deep orange at the base of each petal, and a mass of beautiful golden stamens. Gray-green foliage finely cut. Pkt., 5c.

## BRACHYCOME (Swan River Daisy)

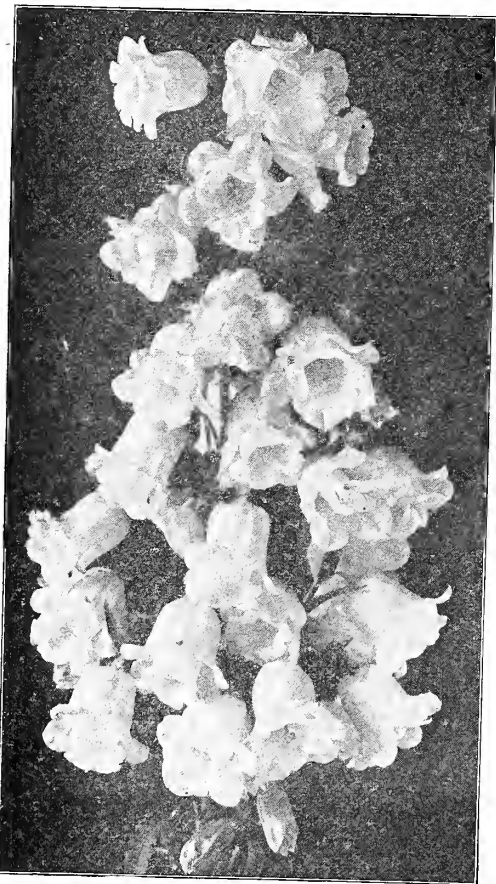
Dainty, pretty little annuals, forming tufts seven to eight inches in diameter and about twelve inches in height, with thread-like foliage, covered with countless small daisy-like flowers about three-fourths of an inch in diameter. It blooms all summer, and is a fine little edging plant. Blue, White,

Rose, Mixed  
— Each,  
Pkt., 5c; ¼  
Oz., 10c.



Double Camellia-Flowered Balsam.





Double Canterbury Bell.

## BROWALLIA

A pretty annual, popular and useful for bedding. Plants one to one and one-half feet in height, stems slender and very branching, leaves very abundant. The dainty flowers, of intense blue with a touch of white at the throat, are thickly borne in irregular clusters at the tips of branches. Corolla salver-shaped, one to one and one-half inches. Plant blooms until hard freezing weather.

**BROWALLIA ELATA**—Pkt., 5c.

## CALLIOPSIS (Annual Coreopsis)

One of the daintiest and prettiest annuals. The graceful plants are slender and branching. The composite flowers are of warm and harmonious tints of yellow, rich red-maroon and purple-brown. They will grow anywhere, and are beautiful and ornamental planted in masses in the garden, or used as cut flowers in the house. The Drummondii and Coronata are dissimilar to the others in having larger leaves; the flowers also have broader rays, and resemble the Cosmos. Sow thinly in the spring where the plants are to remain.

**GOLDEN RAY**—Six to eight inches. Flowers one and one-half inches in diameter, rays narrow and toothed, outer half bright golden-yellow, inner half purple-brown. Foliage finely cut. Pkt., 5c.

**CRONATA (Crown of Gold)**—Flowers two to three inches across, of bright golden-yellow with a touch of reddish-brown at the base of each petal, somewhat resembling a crown; central disk yellow, leaves oval spatulate. Flower stems long and wiry. Pkt., 5c.

**TIGER STAR (New)**—Eight inches tall. The flowers are strikingly handsome. The rays are narrow and twisted, in color purple-brown with reddish suffusion, tigered bright gold. Finely cut foliage. Pkt., 10c.

**ADIATA**—Fifteen inches. Flowers one and one-fourth inches, rich purple-brown. Foliage finely cut. Pkt., 10c.

**DRUMMONDII, GOLDEN WAVE**—Twenty-two inches. Leaves of dull green, sometimes divided into three or five oval-oblong lobes. Flowers one and one-half inches across, having rays of deep yellow, and a circle of rich crimson-brown around the disk. Pkt., 5c.

**ALL PURPLE**—Twenty-nine inches. Flowers one and one-half inches. Rays broad, rich deep purple-brown with dull gold reverse. Finely cut foliage. Pkt., 5c.

**ANNUAL TALL MIXED**—Containing all the above. Pkt., 5c; Oz., 20c.

**WARF PURPLE**—Flowers like those of the Tall Purple. Plants fifteen inches tall. Pkt., 5c.

**WARF TIGER STAR**—Flowers resembling those of the Tall Tiger Star. Plants fourteen inches tall. Pkt., 10c.

**DWARF GOLDEN RAY**—Plants fifteen inches tall. Pkt., 10c.

**TOM THUMB BEAUTY**—Thirteen and one-half inches high, flowers one inch across, bright gold with rings of purple-brown around the disk. Very good for edging. Mixed—Pkt., 10c.

## COREOPSIS

(*Lanceolata Grandiflora*)—Beautiful hardy perennial, blooming the first year from seed if sown early. Strong, vigorous and bushy plants, two to three feet tall. The flowers are composite, very large, of extremely graceful form, having broad and fluted rays, four-toothed at tips, purest golden-yellow in color; they are borne on very long slender wiry stems. This is one of our very best yellow flowers, and blooms freely and continuously from June until late autumn. Pkt., 10c; ¼ Oz., 20c.

## CALENDULA

(Pot Marigold)

Hardy annual, one foot in height. Strong, bushy plants. Very showy, large, double composite flowers, ranging in color from ivory to deep orange. They bloom all summer and fall until cut down by frost, and are very cheerful in late autumn. Sow in open ground in spring. Mixed, Pkt., 5c; ½ Oz., 10c.

## CAMPANULAS

**CAMPANULA PERSICIFOLIA (Peach-Leaved Bell Flower)**—Hardy perennial, with superb spikes two to three feet high, composed of cup-shaped flowers of pale blue or white. Pkt., 10c.

**CAMPANULA PYRAMIDALIS (Chimney Bell Flower)**—Hardy perennial. Four to five feet. Splendid for the garden and also for decorative work in the house. Plants tall, erect, pyramidal in effect, with spikes three to four feet long of bell-shaped flowers of pale blue or white. Mixed, Pkt., 10c.

**CAMPANULA MEDIUM (Canterbury Bell)**—Hardy biennial, of easiest culture, blooming the second year from seed. Two and one-half feet in height. Of all the Campanulas this one has the largest and loveliest flowers. Plants with pyramidal branches covered with the beautiful flowers, which are bell-shaped, two to three inches long, one to one and one-half inches broad, in white, pale blue, rose, lilac, violet and striped. **Single, Blue, White, Rose, Striped, Mixed**—Each, Pkt., 5c; ½ Oz., 10c. **Double**, flowers having one bell inside the other; **Mixed**—Pkt., 5c.

**CAMPANULA CALYCANTHEMA (Cup and Saucer)**—A variety of the Canterbury Bell with very curious and pretty flowers, having the calyx developed into a collarette, of the same color as the corolla, giving the appearance of a cup and saucer. The flowers are usually three inches in length, with saucers three to four inches across. The colors are white, lilac, rose and violet. **Mixed**—Pkt., 5c.



Single Canterbury Bell.



## CANDYTUFT

Well known annual, useful for bedding. It will grow anywhere, but needs plenty of moisture. Sow outdoors in April.

**GIANT HYACINTH-FLOWERED**—This variety has white flowers in full cylindrical spikes seven inches long by two and one-half inches in diameter. These spikes are arranged in the form of a candelabrum, and when seen from a distance have the appearance of double white Hyacinths. To produce the finest spikes the plants should be transplanted. Pkt., 10c;  $\frac{1}{4}$  Oz., 15c;  $\frac{1}{2}$  Oz., 25c; Oz., 40c.

**MIXED ANNUAL SORTS**—White, crimson and pink mixed. Pkt., 5c;  $\frac{1}{2}$  Oz., 10c; Oz., 15c.

## HARDY CANDYTUFT

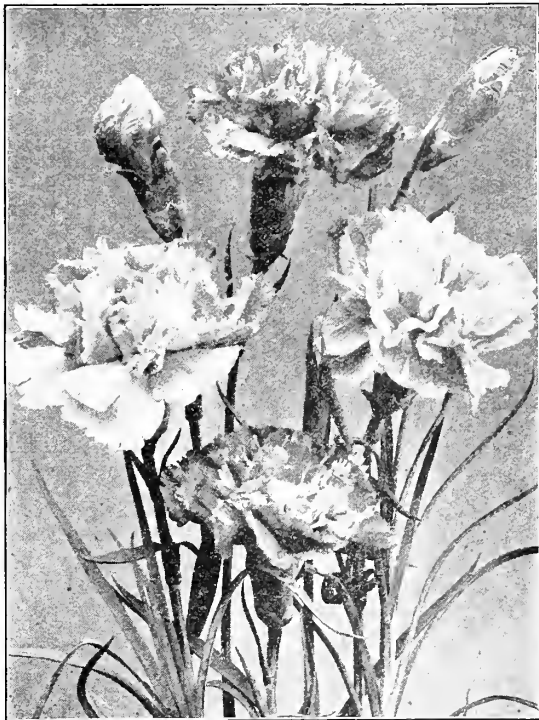
**SEMPERVIRENS**—A very pretty little evergreen, forming large compact tufts one foot in height. It is a hardy perennial, and very useful and ornamental used as an edging for beds of taller plants. The leaves are a beautiful green, and the plants are covered in spring with umbels of small silvery-white flowers. Pkt., 10c.

## CARNATIONS

**GIANT MARGARET MIXED**—A very beautiful, rapidly growing race, flowering all summer and autumn from seed sown in spring. The flower stems are erect, covered with large flowers often three inches across, very double, with petals frilled and sometimes deeply toothed, delightfully fragrant. The colors are extremely varied, including white, blush, deep pink, salmon, carmine, crimson, yellow and scarlet, often combined with another color. Seed may be started in greenhouse or sown in the open ground in spring. **Mixed**—Pkt., 10c.

**CHAUBAUD PERPETUAL**—The flowers resemble those of the Giant Margaret, but are larger, more durable, more fragrant and surpass all others in richness and variety of coloring. Plants thick-set and bushy. Flowers sometimes with fringed edges, sometimes smooth, sometimes of solid color, sometimes beautifully variegated and marked. They will bloom in five months from seed, which may be started in the house or in open ground. They will bloom until very hard freezing weather; first frosts do not harm them. **All colors mixed**—Pkt., 15c.

**McKINLEY**—Rich dark red. Pkt., 10c.



Margaret Carnations,

## CATCHFLY (Silene)

A very bright and showy early flowering annual. The small five petaled flowers of deep rose or pure white are arranged in flat-topped clusters. Plants of very slender habit, one to one and a half feet in height. Seed may be sown outdoors in spring. **Mixed**—Pkt., 5c.



Sweet Sultan.

## CELOSIA

**CRISTATA (Cockscomb)**—Well known annual. Seed may be started in the house and transplanted, or sown directly in the ground. The flowers are arranged in dense crests. The colors are amaranth, fiery-red, golden-yellow, rose and orange. **Dwarf Mixed**, height eight inches, Pkt., 5c. **Tall Mixed**, two and one-half to three feet, Pkt., 5c.

**CELOSIA PLUMOSA (Ostrich Plume)**—Plants very branching, reaching a height of two and one-half to three feet. Branches long and flexible. Flowers in plummy panicles, giving a picturesque and elegant effect. The principal colors are crimson, fiery red, orange and yellow. **Crimson, Fiery Red, Golden-Yellow, Mixed**—Each, Pkt., 5c.

**CHINESE WOOLFLOWER (Celosia Childsii)**—This remarkable Celosia has plants two to three feet in height and very bushy, each branch terminating in an immense roundish flower head of deep rich crimson, and having in addition numerous laterals with smaller heads of bloom, the whole forming an extremely ornamental object. It is very decorative in the garden, whether grown as specimen plants or massed. Pkt., 10c.

## CENTAUREA

Hardy annuals good for cutting, with attractive flowers on long stems. Free bloomers of the simplest culture. Sow in open ground in spring. They self-sow very freely.

**CENTAUREA CYANUS (Corn Flower, Ragged Sailor, Bachelor's Button)**—Beautiful full composite flowers with florets shaped like tiny trumpets, with the border cut into seven or eight minute divisions. The plants grow two or three feet, very broad and branching. The leaves are grayish-green. The colors of the flowers are bright blue, rose, violet or white, many of them margined, striped and tipped with a second color, with very pretty effect. **Mixed**—Pkt., 5c;  $\frac{1}{2}$  Oz., 15c.

**EMPEROR WILLIAM**—Deep rich blue. Pkt., 5c;  $\frac{1}{2}$  Oz., 10c.

**CENTAUREA IMPERIALIS (Imperial Sweet Sultan)**—Plants two and one-half feet in height, with stiff branching stems and soft green leaves. Large finely fringed composite flowers three to four inches across, full and double, and very fragrant. The colors are lilac-rose with white center, brilliant rose, deep rose, white and mauve. **Mixed**, Pkt., 5c;  $\frac{1}{2}$  Oz., 15c.

**SUAVOLENS (Yellow Sweet Sultan)**—Large, fragrant flowers of clear yellow. Pkt., 5c.

**MIXED IMPERIALIS AND CYANUS**—A mixture of all the annual Centaurea. Pkt., 5c;  $\frac{1}{2}$  Oz., 25c.

**CENTAUREA AMERICANA**—(New.) Plants three feet in height. Strong stems, erect, slightly branching. Fringed flowers very full and double, three to three and one-half inches in diameter, beautiful pale lilac in color. This is a very attractive novelty, easily grown, free blooming and reliable. Pkt., 10c.

## CLARKIA

The Clarkia is one of the loveliest of annuals. The plants are one and one-half feet in height and branching. The flowers are formed of three or four rows of petals, slightly fluted, of lovely texture and very clear pure colors of bright rose, violet-rose, rosy-white, flesh, violet and pure white, sometimes variegated, blotched and striped, and are arranged in leafy spikes, very full and long. They are beautiful for cut flowers, lasting a long time in water. Sow outdoors in spring. **Scarlet Beauty**, brilliant salmon scarlet, **Salmon Queen**, soft salmon-rose; **Coppery Red**, **Double Carmine Scarlet**, **Rose**, **White**—Each, Pkt., 10c. **Elegans Double Mixed**—Pkt., 5c.

## COBAEA SCANDENS

Handsome and rapidly growing tender perennial climber, blooming the first year from seed, which should be started very early either in greenhouse or in a box of soil in a window; the latter method succeeds very nicely. The smooth and glossy leaves are ornamental, and so are the seed pods. The flowers are very large and bell-shaped. The vine is sturdy and a very vigorous grower, attaining a height of twenty to thirty feet in a season, and it will stand quite hard frosts in autumn.

**VIOLET**—Flowers at first green, gradually becoming vinous bluish-violet, the uniform tint of the adult flower. Pkt., 5c.

**WHITE**—Pkt., 5c.

## CHRYSANTHEMUMS

Annual Chrysanthemums bloom freely from early summer until fall. Perennial varieties in the fall only.

### ANNUAL

Plants average one and one-half feet. Flowers of bright and beautiful colors, very showy and effective for borders and cut flowers, and very useful for brightening shrubberies and drives. Sow under glass or in open ground. To make compact, bushy plants, pinch back early growth.

**MIXED, ANNUAL, SINGLE AND DOUBLE**—Pkt., 5c; ¼ Oz., 15c.

### JAPANESE HYBRIDS

Gorgeous and magnificent plants, ranging in height from two to three and one-half feet. If not disbudded each separate plant will produce from two to four hundred flowers. Colors, white and all shades of lemon, yellow, orange, pink, rose, bronze and rich crimson. Sow seed under glass in February or March, keep as cool as possible and harden off in cold frames before setting out in open ground. Treated in this way they will begin blooming the latter part of August and continue until quite heavy frosts; light frosts do not harm them. Pkt. of 100 seeds, 15c.

### SHASTA DAISY

Very fine, perennial, blooming the second year from seed. The Daisy-like flowers of glistening white are borne on good stiff stems two feet long. Soak seed in warm water before planting. Pkt., 10c.

## CORN FLOWER ASTER

(Stokesia Cyanea)

Hardy perennial. Plants one to one and one-half feet in height, slightly branching. The flowers are delicate and beautiful. They are four to five inches across, resembling the Cornflower, soft blue in color. It blooms from July until frost. It is easily grown from seed and does well in any open dry situation. Sow outdoors in spring. Pkt., 10c.



Corn Flower Aster.

## COSMOS

### LATE FLOWERING COSMOS

Tall growing autumn flowering annual, forming plants eight to ten feet in height and very symmetrical, clothed in graceful, finely cut foliage and masses of brightly colored and elegant composite flowers, often four inches across, of pure white and shades of rose and crimson, with yellow disc. The flowers are borne on very long stems, and are unsurpassed for cutting. Seed should be started in boxes in March or April and transplanted to the open ground in full sun.

**LATE FLOWERING LADY LENOX**—Lovely shell-pink flowers of great size and substance, having unusually long stems. Pkt., 10c; ¼ Oz., 20c.

**LATE FLOWERING WHITE, Rose, Crimson, Mixed**—Each, Pkt., 5c; ¼ Oz., 10c.

### EARLY FLOWERING COSMOS

The early Cosmos form compact bushes four feet in height, and have flowers averaging three inches. They begin blooming in July. Seed may be started in boxes or open ground.

**DAWN**—Delicately beautiful flowers of white flushed rose. Pkt., 5c; ¼ Oz., 15c.

**EARLY FLOWERING MIXED**—Pkt., 5c; ¼ Oz., 15c.



Cosmos.



## CYPRESS VINE (*Ipomoea Quamoclit*)

Well known annual climber, ten feet in height, foliage finely cut and delicate. The flowers have long slender tubes and star-shaped borders. Soak seeds in hot water before planting, and sow in spring where the plants are to remain, keeping the soil quite moist until the plants come up.

**WHITE, CRIMSON**—Each, Pkt., 5c;  $\frac{1}{2}$  Oz., 15c. **MIXED**—Pkt., 5c;  $\frac{1}{2}$  Oz., 10c.

**CARDINAL CLIMBER**—A new and very fine annual climber of very quick and luxuriant growth, attaining a height of twenty feet. The leaves are deeply cut and abundant, the salver-shaped flowers are one inch across, rich cardinal-red, freely borne in clusters of five to seven. Altogether this is a decided acquisition to the list of annual climbers. It requires a warm sunny location and rich soil. Pkt., 15c.

## CHILDREN'S GARDEN MIXTURE

A mixture composed of bright and easily-grown annuals in great variety. This is useful not only for children's gardens, but for brightening waste places. Try a packet and you will be surprised at the varieties of flowers it will give you. Do not sow too thickly. Pkt., 5c; Oz., 20c.

## DELPHINIUM (*Larkspur*) ANNUAL VARIETIES

We do not believe that the delicate beauty of the improved forms of the annual Larkspurs are as well known to flower lovers as they should be. Nearly everyone is familiar with the old single-flowered kinds which are found in old gardens, coming up year after year, but the varieties with double flowers are very superior to these old single-flowered kinds, and come in a much greater variety of pure bright colors. Seed may be sown in the open ground in spring or fall. The plants do best in cool, moist, very rich soil.

**\*TALL BRANCHING LARKSPUR**—Plants two and three feet in height, stem branching, leaves finely cut. Flowers very large and double, arranged in loose panicles at ends of branches and stem, in color white, flesh, dregs of wine, lilac, mauve-rose, coppery-rose, red and violet, sometimes variegated in three colors. **Mixed**—Pkt., 5c;  $\frac{1}{4}$  Oz., 20c.

**\*DWARF CANDELABRA-FLOWERED**—This very pretty dwarf plant forms a tuft fifteen inches in height and of about equal circumference. The numerous branches grow in all directions, at first horizontally, then straighten themselves so as to carry in a vertical position the terminal spikes of large double flowers; the result is in the form of a candelabrum with many branches. **All colors mixed**, Pkt., 10c.

**TALL ROCKET**—Stem nearly always single, three and four feet high, compact spike, five to seven inches in length.

One-half feet in height. Large double flowers in a single, elegant spike. The colors are white, brown, flesh, flax gray, dregs of wine, lilac, mauve, ashy gray, rose, coppery-rose, red, reddish-violet and bright violet. **All colors mixed**, Pkt., 5c;  $\frac{1}{4}$  Oz., 10c.

**DWARF ROCKET**—Stem in the neighborhood of twenty inches in height. Flowers very double and arranged in a dense spike generally cylindrical, round or flattened at the summit, in the following colors: White, brown, flesh, peach blossom, flax gray, lilac, pale lilac, bright mauve, rose and violet. **All colors mixed**. Pkt., 5c;  $\frac{1}{4}$  Oz., 10c.

**EMPEROR**—Branching plants, two feet tall, bearing ten to twenty slender spikes of bright and showy single flowers in pink, blue and white. **Mixed**, Pkt., 5c;  $\frac{1}{4}$  Oz., 10c.

**GIANT HYACINTH FLOWERED**—Plants branching fifteen to eighteen inches in height. Very double flowers like large Hyacinths, borne on long spikes. Colors varied and beautiful. **Mixed**, Pkt., 5c;  $\frac{1}{4}$  Oz., 15c. Imported collection of Hyacinth-Flowered Larkspurs, six varieties, 25c.

## PERENNIAL DELPHINIUMS

Stately and noble plants, with spikes six to eight feet high, covered for half their length with the beautiful flowers. Sometimes forty spikes are produced from one root. The flowers are double or semi-double, with a blunt plaited spur, and in the throat a curious arrangement of velvety hairy petals, white or blackish. The color varies from the palest blue and almost white to deep violet and smoky-violet, sky-blue and indigo.

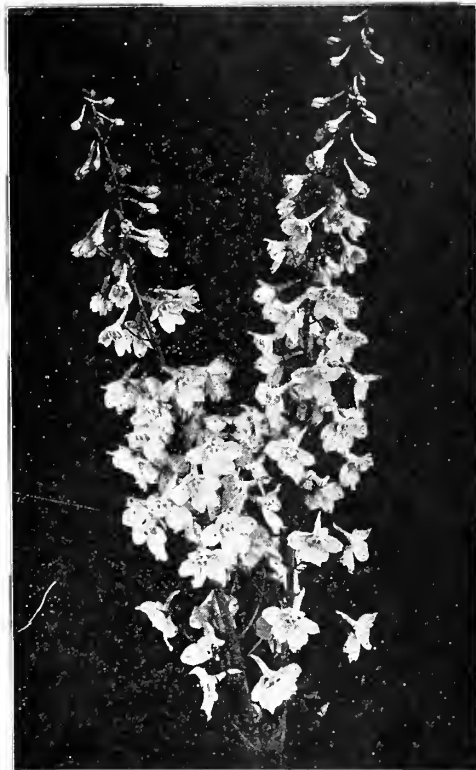
Anyone can have a bed of Delphiniums; they are easily started, perfectly hardy even under the most severe conditions, and increase in size and beauty from year to year. Seed may be started in boxes or open ground in spring. The plants will bloom the second year from seed, but will not be at their best until the third. They require a soil deep, rich and mellow. The blooming season is from the end of May to August. When the first flowers fade, the plants should be cut to the ground; a crop of fresh green leaves will at once start, followed by more flower spikes, although not so large as the first ones.

**DELPHINIUM, Kelway's Hybrids**—All colors mixed. Pkt., 25c.

## DATURA

Showy annuals. Large branching plants 3 to 5 ft. high, with thick stems, foliage resembling the *Datura Stramonium*, or Jimson weed. Flowers very large, 8 in. long, funnel-shaped.

**CORNUCOPIA (Horn of Plenty)**—Immense flowers of cream-white and blackish purple-violet. Pkt., 5c. **GOLDEN QUEEN**—Pale yellow. Pkt., 5c. **WHITE**—Pkt., 5c. **MIXED**—Pkt., 5c.



Delphinium.



Delphinium, Kelway's Hybrids.

## DIANTHUS

(Pinks)

### ANNUAL VARIETIES

The so-called annual Pinks are for the most part biennials; they will bloom the first year from seed, go through the winter, and flower quite early the next season, some of them lasting for many years. They will flower all summer and autumn from seed sown in late May in open ground. The plants are strong, erect, bushy, loaded with flowers. They are brilliant and beautiful grown in masses, and make lovely bouquets.

#### DIANTHUS CHINENSIS

(China or India Pink)—Of old gardens. Double flowers growing in clusters, with petals irregularly toothed, of velvety texture, variegated in striking designs in white, rose, crimson, maroon, scarlet, flesh and violet. **Double Mixed**—Pkt., 5c;  $\frac{1}{4}$  Oz., 10c.

**HEDDEWIGII (Japan Pink)**—Foliage more or less tinted bluish-violet, variable as to width of leaves. Flowers three to four inches in diameter, usually toothed or fringed, coloring very variable. The colors range from purest white to dark blood-red and deep crimson including carmine, salmon and rose, sometimes self-colored, often with petals bordered, flecked, streaked and marbled with another color. **Choice Double Mixed**—Pkt., 5c;  $\frac{1}{4}$  Oz., 20c. **Choice Single Mixed**—Pkt., 5c;  $\frac{1}{4}$  Oz., 10c.

**SALMON QUEEN**—Quite distinct, salmon-rose. Pkt., 10c.

**SNOW QUEEN**—Best double white. Pkt., 10c.

**MOURNING CLOAK**—Large double flowers of deepest mahogany, almost black, edged white. Pkt., 5c.

**CRIMSON BELLE**—Large single flowers of dark blood-red. Pkt., 5c.

**QUEEN OF HOLLAND**—Single pure white flowers. Pkt., 5c.

**VESUVIUS**—Large single flowers of brilliant carmine-lake, about two inches in diameter, with fringed petals. Pkt., 10c.

**EASTERN QUEEN**—Flowers three inches in diameter, fringed petals, white marbled with pale rose, points bright rose. Pkt., 5c.

**DIANTHUS LACINIATUS**—Immense flowers, very deeply fringed. **Double Mixed**—Pkt., 5c. **Single Mixed**—Pkt., 5c.

**W. B. MIXTURE ANNUAL PINKS**—This mixture, which we blend ourselves, contains the best of the Annual Pinks, and we recommend it to those of our customers who do not wish to purchase separate varieties. Large packet, 10c.

### HARDY PINKS

**DIANTHUS PLUMARIUS (Clove or Grass Pinks)**—This beautiful hardy perennial, which was one of the choice flowers of old gardens, has been greatly improved. The stems are numerous, attaining a height of eight to twelve inches, forming very heavy, compact, leafy tufts. The beautiful evergreen foliage is covered with a silvery bloom, the flowers are abundant, very fragrant. The divisions of the flowers are sometimes almost entire, more often variously and elegantly fringed; colors but slightly varied, ordinarily white or rose, sometimes shaded or zoned with crimson, cerise or blackish-brown, the center showing an eye. **Double Mixed**—All colors. Pkt., 10c. **Single Mixed**—All colors, Pkt., 5c.

### DIMORPOTHECA AURANTIACA

**GOLDEN ORANGE DAISY, or Golden Star of the Veldt**—A showy annual from South Africa. Plants branching, about twelve inches high. Pretty Daisy-like flowers two and one-half to three inches across, of lustrous orange-gold with dark colored disk zoned black. Height one foot. Sow outdoors in spring. Pkt., 10c.

**AURANTIACA HYBRIDS**—Flowers are pure white, bluish-white, sulphur, lemon, orange, salmon, many of them zoned with another color. **Mixed**—Pkt., 10c.

### DOUBLE DAISIES (Bellis Perennis)

Charming little hardy perennials, growing in tufts, six inches in height. Double composite flowers formed of very narrow petals. They are very good for edgings and small beds, and for growing in pots. They will flower the same season if seed is sown early. Seed may be sown indoors or in the open ground in spring, or it may be



Double Japan Pinks.

sown in the fall and the plants wintered in cold frames.

**LONGFELLOW**—Dark rose. Pkt., 10c.

**SNOWBALL**—Pure white. Pkt., 10c.

**DOUBLE MIXED**—Pkt., 10c.

### DOLICHOS (Hyacinth Bean)

A rapid growing and free flowering climber ten feet in height, useful for screens, with foliage and flowers in shape resembling those of the garden bean.

**PURPLE SOUDAN**—Very decorative. The flowers are bright violet shaded darker, the very broad pods are glistening purple-violet; the stems are also purple-violet. The leaves are deep green veined dark purple-violet. Pkt., 5c.

**DAYLIGHT**—Snow-white flowers followed by white seed pods. Pkt., 5c.

**WHITE BUSH**—Bushy plants eighteen to thirty inches tall with long flower spikes of creamy-white. It is a very ornamental plant, and has a long blooming season, being constantly in flower from the middle of July until frost. Pkt., 10c.





Escholtzia.

## DICTAMNUS

(**Fraxinella or Gas Plant**)—A very ornamental perennial. The plants grow to a height of three feet, are branching, and have stems strong and slightly woody. The leaves are very pretty, dark green and glossy, in shape resembling those of the ash tree. The flowers have five unequal petals, and five drooping styles longer than the petals, producing an unusual and attractive appearance. The oddly shaped seed pods are very fragrant when handled. This is a very lasting plant, and should be left undisturbed for years.

**WHITE**—Pkt., 5c.

**ROSE**—Flowers of rose marked and striped darker, stamens and pistil the same color. Pkt., 5c.

## ESCHOLTZIA (California Poppy)

A bright, free flowering annual of low spreading habit, growing in tufts, with finely cut grayish-green foliage, and rich poppy-like flowers. Sow the seed in spring or late in autumn where the plants are to remain. Thin six to eight inches apart. Height one to one and one-half feet.

**CALIFORNICA**—The true wild Escholtzia. Extra selected seed from the plants having the largest flowers and the finest deep rich orange color. Pkt., 5c; ½ Oz., 15c.

**GOLDEN WEST**—Very large, orange-colored blossoms, shading to creamy-yellow at the edge. Pkt., 5c; ½ Oz., 15c.

**CARMINE KING**—Deep crimson. Pkt., 5c.

**ROSE QUEEN**—A charming variety, milk-white on the inside of petals, soft rose on the outside, sometimes bright rose. Pkt., 10c.

**MIXED**—Pkt., 5c; Oz., 15c.

## GAILLARDIA (Blanket Flower)

Showy and easily grown plants, fine for bedding and for cut flowers. They like a good light soil and plenty of sun, but are not at all particular. The flowers are freely produced from July until freezing weather. The plants are hairy, robust and erect, with stem branching at the summit. The composite flowers are carried on long stiff and slender stems.

**GAILLARDIA PICTA**—Single composite flowers, two to three inches across, rays broad and toothed at the tips, purplish-brown bordered yellow; disk greenish-yellow with center of blackish-purple. **Mixed**—Pkt., 5c; ½ Oz., 15c.

**GAILLARDIA LORENZIANA**—Double flowers with funnel-shaped florets, forming almost globular heads, of deep brown bordered yellow, maroon bordered yellow, lemon-yellow, deep yellow, etc. **Mixed**—Pkt., 5c; ½ Oz., 20c.

## PERENNIAL GAILLARDIA

**KELWAY'S EXHIBITION**—Very stout plants of compact, bushy habit. The flowers are composite, four to five inches across, and semi-double. The rays are very broad and toothed at edge, resembling those of the annual Gaillardia Picta, but with a much greater diversity of colors and markings, scarlet with gold edge, blood red with yellow edge, carmine tipped yellow, scarlet bordered pale yellow, etc. The plants form bold and handsome ornaments in the garden and bloom all summer if seed pods are cut off. **Mixed**, seed saved from twelve separate varieties—Pkt., 25c.

## GOMPHRENA (Globe Amaranth)

One of the prettiest of everlasting, bearing great numbers of globe-shaped flowers resembling clover heads, of glistening violet, creamy-white, bluish-white, rose and white striped and veined violet. The plants are one foot in height, downy and branching. They bloom all summer and autumn. Sow seed outdoors in spring. **Mixed**, all Colors—Pkt., 5c.

## GODETIA

Free blooming annual. Plants one and one-half feet in height, compact, branching from the base. The flowers, three to four inches in diameter, composed of four large petals arranged to form a cup, are borne in the axils of the leaves, and form a leafy spike. They are very lovely, of beautiful satiny texture, and bright, dainty colors, many of them having a white ground beautifully marked carmine and rose.

**CRIMSON GLOW**—Deep rich crimson. Pkt., 10c.

**DUCHESS OF ALBANY**—Plants pyramidal in form, very large flowers of pure white. Pkt., 5c.

**GLORIOSA**—Very dark red—the deepest coloring of all. Pkt., 5c.

**LADY SATIN ROSE**—Bright carmine. Pkt., 5c.

**MIXED**—Pkt., 5c; ¼ Oz., 10c.

Imported Collection of Godetia, six varieties, 25c.

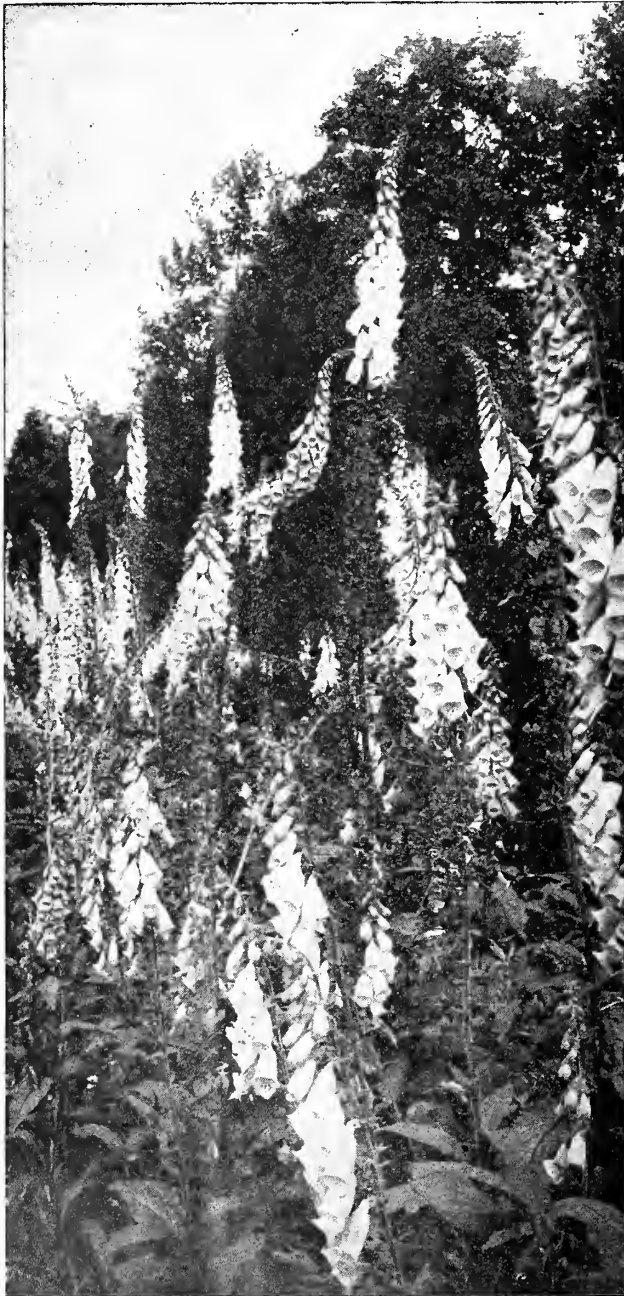


Annual Gaillardias.



## DIGITALIS (Foxglove)

Handsome and dignified hardy perennial. The stems are very robust, four to five feet in height, single or slightly branched. The whole plant is covered with a whitish down. The pendant, thimble-shaped flowers an inch to an inch and a half in length are disposed in compact spikes two to three feet long. In the *Monstrosa* type the spike bears a large cup-shaped flower at the summit. Colors, purple-rose, soft rose, spotted and tigered brown or purple, white spotted carmine, soft yellow, etc. The *Digitalis* makes a splendid background for lower plants. It is most satisfactory treated as a biennial, sowing the seed every year in rich, deep soil. Seeds must be kept moist until they germinate. **Mixed**—All types and colors. Pkt., 5c.



*Digitalis.*

## GEUM

**MRS. BRADSHAW**—Hardy perennial. A fine addition to the hardy border. The plants are thrifty, one to two feet in height, erect, slightly branching. The large double flowers are two and one-half to three inches across, with broad, beautifully ruffled petals, brilliant scarlet in color. Stamens conspicuous. The flowers are fine for cutting, retain their color in hot sunshine, and are borne in profusion throughout the whole summer. Seed sown early will bloom the first year. Pkt., 15c.

## ORNAMENTAL GOURDS

A choice mixture, including many curious and unique varieties. Pkt., 5c.

Imported Collection, 6 varieties—25c.

Imported Collection, 12 varieties—40c.

## \*ORNAMENTAL GRASSES

**\*AGROSTIS NEBULOSA** (Cloud Grass)—Delicate and graceful annual grass, with mist-like panicles, at first greenish-red, then violaceous. One and one-half feet. Pkt., 5c.

**BRIZA MAXIMA** (Quaking Grass)—Annual. Plants in tufts; flowers in the form of oval spikelets, arranged in loose panicles, yellowish-white or straw-yellow, very graceful, swaying in the lightest breeze. One foot. Pkt., 5c.

**COIX LACHRYMAE** (Job's Tears)—Annual. Cultivated principally for the hard gray seeds, which are sometimes strung like beads. Two to four feet. Pkt., 5c.

**ERIANTHUS RAVENNA**—Resembling Pampas Grass, but perfectly hardy. Pyramidal panicles, at first violaceous, changing to silky grayish-white. Five feet. Pkt., 5c.

**GYNERIUM ARGENTUM** (Pampas Grass)—Blooms the second season but not hardy. Magnificent panicles, silky and silvery. Plant forms dense tufts. Three feet. Pkt., 10c.

**GYNERIUM ROSEUM**—Like the above, but the panicles are tinted rose. Pkt., 10c.

**GYMNOTRICH LATIFOLIA**—Graceful pyramidal spikes, resembling *Erianthus Ravenna* but more beautiful and more ornamental. Eight to ten feet. Pkt., 10c.

**HORDEUM JUBATUM** (Squirrel Tail Grass)—Hardy annual grass. Stalks terminating in oblique crest, gracefully curved, formed of spikelets arranged in the form of a fish bone. One and one-half to two feet. Pkt., 5c.

**OATS ANIMATED**—An annual Oats with full panicles and grains twice the size of ordinary Oats. Pkt., 5c.

**PENNISETUM RUPELLII** (Fountain Grass)—Annual. Long feathery purplish spikes. Two and one-half feet. Pkt., 10c.

**ZEA GIGANTEA QUADRICOLOR**—Annual. A variety of maize with leaves variegated yellow, green, rose and dark red. Four feet. Pkt., 5c.

**ORNAMENTAL GRASSES MIXED**—Large packet, 10c.

## GYPSOPHILA PANICULATA

(Baby's Breath)

Hardy perennial. The plants form elegant compact little bushes, two feet in height. The stems are very slender, very branching, with delicate foliage. The whole plant is so covered by the countless small white flowers as to present a mist-like appearance. The *Gypsophila* is very ornamental in the border, and useful for lightening bouquets of other flowers. It is easily grown from seed, which may be sown in open ground in spring. Pkt., 5c.

## HELIOTROPE

Tender perennial. The *Heliotrope*, with its effective foliage and deliciously fragrant flowers, makes a fine bedding plant. The cost of buying many plants is considerable, but they are easily grown from seed, which may be sown either in a greenhouse or in boxes of soil in the window. Plants so grown will soon make fine large specimens, and will bloom all summer. They should be pinched back to make compact, bushy growth. The delicate, beautifully shaded flowers are arranged in curved spikes.

**PERUVIANUM**—Plants two to three feet tall. Flowers clear blue or grayish-lilac. Pkt., 15c.

**MADAME BRUANT**—The most remarkable of all the varieties of *Heliotrope*. It is a dwarf variety not more than 12 or 15 inches, is very vigorous, very branching, very compact. It blooms abundantly for a long time. The flowers are violet-blue with white center, borne in very large clusters, seven to eleven inches in diameter. Pkt., 15c.

**ROI DES NOIRS**—The distinguishing characteristics of this variety are the very dark tint of the stems, sometimes almost black, and the deep violet color of the flowers. Very free flowering. Pkt., 15c.

**MIXED VARIETIES**—Pkt., 10c.



**HELICHRYSUM** (Eternal Flower)

Everlasting. Plants branching, two to three feet tall. Flowers very large and double, composed of many rows of scales of various colors white, yellow, rose, coppery-red, salmon and purple. Sow outdoors in spring. **Mixed**—Pkt., 5c.

**HOLLYHOCKS** (Althaea Rosea)

Hollyhocks like a rich, well drained soil. The seed should be sown in April and May, not later than June, to flower the second year. **Chater's Superb Hollyhocks are the finest in the world.** The long spikes of great double bomb-shaped flowers come in wonderful shades of red and crimson, rose, yellow, ashen-gray, black, apricot, magenta, etc. The plants grow from five to eight feet tall.

**CHATER'S SUPERB WHITE, PEACH BLOSSOM, CRIMSON YELLOW \*BRIGHT ROSE, \*CARMINE, \*GARNET, \*SALMON, \*MAUVE-ROSE, PURPLE-ROSE**—Each, Pkt., 10c.

**CHATER'S SUPERB MIXED**—Pkt., 10c; ¼ Oz., 25c.

**ALLEGHENY HOLLYHOCKS**—Plants five to eight feet tall with long spikes of large semi-double, fringed flowers. Pkt., 10c.

Imported Collection of Hollyhocks, 6 varieties—40c.

Imported Collection of Hollyhocks, 12 varieties—75c.

**IRIS SEED**

(See page 99.)

**KOCHIA TRICOPHYLLA** (Summer Cypress)

Quick growing annual, forming dense oval bushes, two to two and one-half feet tall, with very slender stems, and delicate leaves, at first light green, then purplish-red, becoming very deep towards the end of the season, when the minute purplish-red flowers appear in the axils of the leaves. Ornamental in the garden or as a pot plant. Pkt., 5c; ¼ Oz., 10c.

**MYOSOTIS** (Forget-Me-Not)

Hardy perennial. Seed may be sown in spring indoors and transplanted, or in the open ground; it may also be sown in the fall. Forget-Me-Nots do well in partial shade, and require much moisture. The plants should be given a very slight covering of leaves during winter. The plants bloom very early in the spring of the second year from sowing, producing their pretty flowers in abundance. They are valuable for undergrowth for bulb beds.

**ALPESTRIS**—Plant of trailing habit, with curved spikes of small five-petaled flowers in color pretty azure-blue, having a tiny crown of white and gold around the center. Pkt., 5c.

**VICTORIA**—Beautiful little plant growing in dense tufts, literally covered with deep blue flowers. Flowering season long. Pkt., 10c.

**PALUSTRIS**—Large flowering true Forget-Me-Not, bright blue in color, flowering the first year from seed. Pkt., 10c.

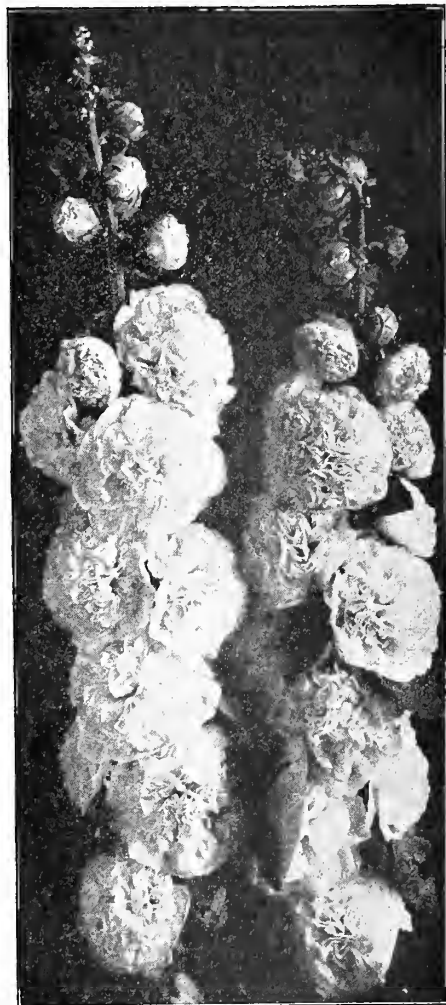
**LOBELIA**

Dainty annuals, blooming quickly from seed and continuing in bloom all summer, useful for beds, hanging baskets and pot culture. Everyone is familiar with the greenhouse grown plants used in porch boxes and hanging baskets, but the good qualities of the Lobelia as a bedder when grown from seed sown in open ground in spring, are not so well known. The compact bedding varieties begin to bloom early, and continue all summer and autumn. They do well on poor ground, and can withstand heat and drought. Wherever a dwarf blue edging plant can be used, the Lobelia will give satisfaction. The leaves are lanceolate, very slender, stems very fine. Small flowers, corolla having five irregular divisions, two of them minute, two larger, and a short tube.

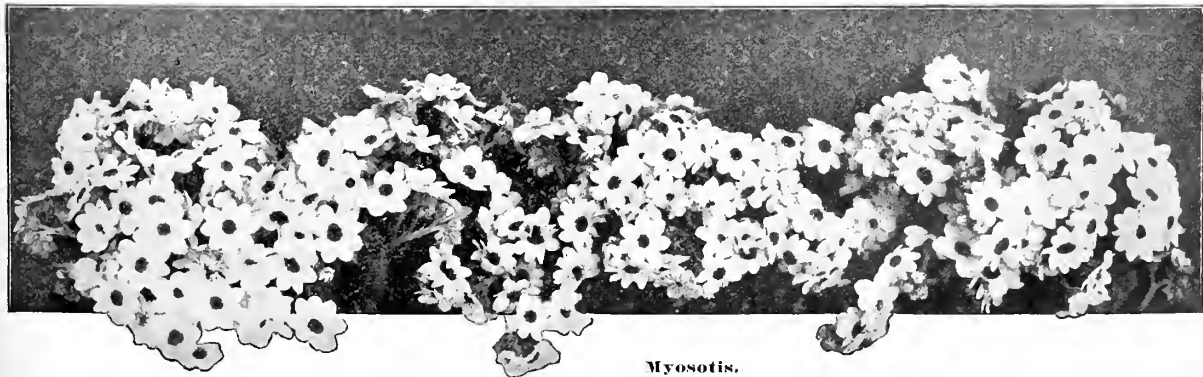
**GRACILIS**—Useful for hanging baskets, of trailing habit. Flowers light blue with two white spots near the throat. Foliage lively green. Pkt., 5c.

**COMPACTA EMPEROR WILLIAM**—Flowers a shade darker than Gracilis, with very minute white spots. Neat, compact little plants with bright green foliage. Pkt., 10c.

**COMPACTA CRYSTAL PALACE**—Pretty little plants forming round tufts, covered with flowers of beautiful violet-blue, one-half inch across, with very minute white spots. Stems and leaves tinted dark violet-red. Six in. in height. Pkt., 10c.



Chater's Superb Double Hollyhock.



Myosotis.

## LUPINS

**ANNUAL VARIETIES MIXED**—Free flowering and easily grown annuals. The plants are very sturdy, very hairy, silken, the stem usually simple, two feet in height, with leaves having finger-like oblong leaflets, and long graceful spikes of large pea-shaped flowers of azure-blue, white, pale rose, yellow, violet, self-colored or bi-colored. Pkt., 5c.

**TREE LUPINS**—Perennials. The Tree Lupins form large bushes like flowering shrubs, with slightly woody stems, and small abundant leaves, light and graceful in effect. The large spikes of showy flowers are of various colors. Mixed—Pkt., 5c.

**SNOW QUEEN**—The beautiful white Tree Lupin. This variety as well as the other Tree Lupins make very beautiful specimen plants. Pkt., 10c.

\***LUPINUS POLYPHYLLUS**—See Novelties, page 63.

## LYCHNIS CHALCEDONICA

(London Pride, or Maltese Cross)

A very fine old hardy perennial. The stems are numerous and stout, bearing on their entire length the oval oblong leaves. The flowers are very numerous, of velvety texture, clear brilliant red in color, and elegantly formed, suggesting in shape the Maltese Cross. They are arranged in clusters borne on the tops of the stems. Easily grown from seed sown outdoors in spring. Pkt., 5c.

\***LYCHNIS ARKWRIGHTII**—See Novelties, page 63.

## MARIGOLD

A sturdy and useful race. The plants are vigorous and bushy, foliage abundant and elegant, flowers profuse and showy. Marigolds are especially useful in late autumn. Seed may be sown in cold frame or open ground.

**TALL AFRICAN**—Large bushy plants, three feet in height. Big double flowers in shades of yellow and orange, two and one-half to three inches in diameter, pompon-shaped, with ruffled petals. Mixed—Pkt., 5c; ½ Oz., 15c.

**DWARF AFRICAN**—Plants eighteen inches in height; flowers like those of the Tall African. Two and one-half feet. Mixed—Pkt., 5c; ½ Oz., 15c. Imported Collection of African Marigolds, 6 varieties—25c.

**TALL FRENCH**—Elegant, medium sized flowers of velvety texture, in rich shades of reddish-brown, reddish-orange, bright orange, bright yellow and brown bordered with yellow, often striped and bordered with a second color. Plants two and one-half feet high. Mixed—Pkt., 5c; ½ Oz., 15c.

**DWARF FRENCH**—One foot. Mixed—Pkt., 5c; ½ Oz., 15c.

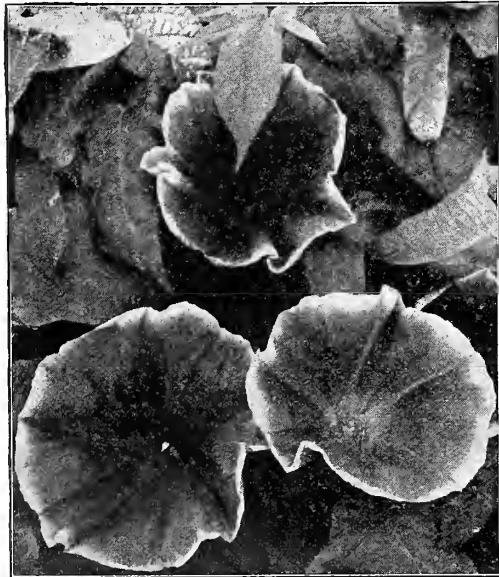
**DWARF LEGION OF HONOR**—Single flowers of bright golden-yellow, marked with reddish-brown. One of the best for edging. Pkt., 5c; ½ Oz., 15c. Imported Collection of French Marigolds, 6 varieties—25c.

**TOM THUMB MARIGOLDS**—This is one of the very best of edging plants on account of the neat little plants ranging in height from four to six inches, and the very bright coloring of the flowers, which are exceedingly abundant and produced over a long blooming season.

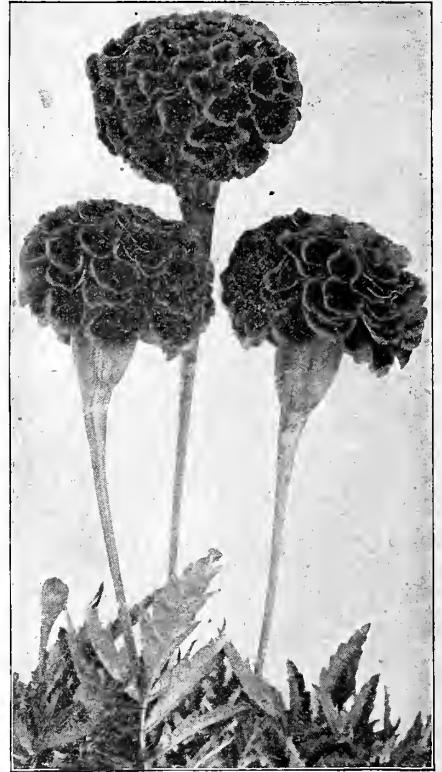
Mixed—Pkt., 5c; ½ Oz., 15c.

## MARVEL OF PERU (Four-O'clock)

Tender perennial, blooming first year from seed. The roots may be kept over winter in the cellar. The plants are two feet high, strong and bushy. Funnel-shaped flowers, open in late afternoon, abundantly borne in terminal clusters, in white, yellow, violet-red, coppery-red, and rose, sometimes self-colored, sometimes variegated, two or three colors. Sow seed outdoors in spring. Mixed, all colors—Pkt., 5c; Oz., 10c.



Japanese Morning Glory.



French Marigold.

## MATHIOLA BICORNIS

(Night-Scented Stock)

Annual, 15 inches. Small lilac flowers of little beauty but possessing an opulence of fragrance. Late in the evening they emit the rich and delicious odor, which is quite distinct. Pkt., 5c.

## MAURANDIA

Tender perennial. Graceful, slender twining plants, with very dainty foliage, small triangular leaves of lively green. Pendant, trumpet-shaped flowers of dark violet, lilac, or rose, with lighter throats; there is also a white variety. It makes a rapid growth, soon attaining a height of six to ten feet from spring sown seed. The flowers are very pretty, and very numerous, produced from July until frost. The effect of the whole plant is light and graceful. Mixed—Pkt., 10c.

## MORNING GLORY (Convolvulus)

**MORNING GLORY (Convolvulus Major)**—The old-fashioned Morning Glory. All colors mixed. Pkt., 5c; Oz., 10c.

**IMPERIAL JAPANESE**—The flowers have a wonderful range of color and markings, ranging from pure white to carmine, through all shades of blue and red, bordered, fringed, mottled and striped. The leaves are diversified in shape and color, some being plain green, others blotched with white and yellow. Mixed—Pkt., 5c; ½ Oz., 15c.

**SNOW FAIRY**—A very beautiful new Morning Glory with very double snow-white flowers. In the center of the flower it a well defined single white Morning Glory, surrounded by numerous curled petals, giving a tassel-like effect to the flower. The vines are vigorous and the flowers freely produced. Pkt., 10c.

## MOONFLOWER (Ipomoea)

**WHITE MOONFLOWER**—A superb and vigorous vine, making a growth of sixty to seventy-five feet in a season. Foliage abundant. Funnel-shaped flowers having a very long slender tube and border broadly and abruptly widened, five to six inches across, of pure satiny-white, very sweet scented. The flowers early in their blooming season open in the evening, but on cold or cloudy days they remain open all day. Seed should be soaked in warm water before planting, and notched with a file. Start in the house and transplant to open ground. Pkt., 10c.

**HYBRID MOONFLOWER**—An improved variety, blooming earlier and producing larger flowers. Very valuable for the North. Pkt., 10c.

**COCCINEA**—Small flowers of brilliant cochineal-red, borne in terminal clusters. Pkt., 5c.



**MIGNONETTE** (*Reseda Odorata*)

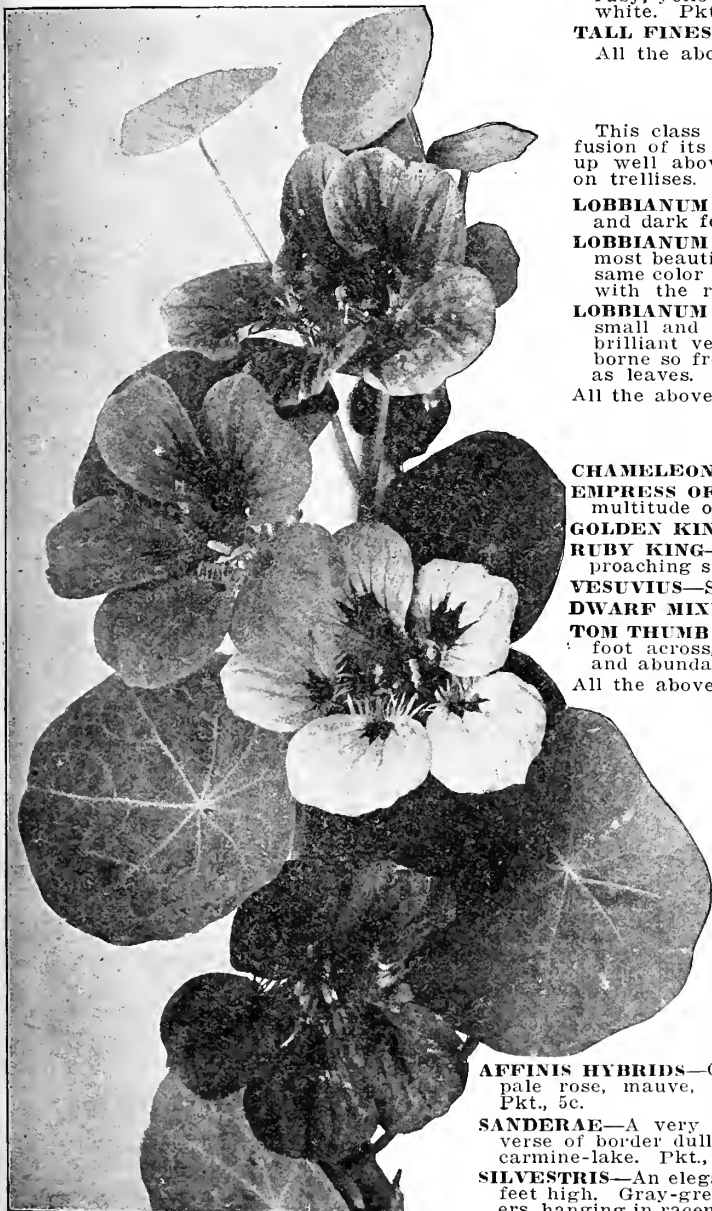
Plants branching, six to twelve inches in height. Very tiny flowers in terminal spikes, oval or conical. Stamens so prominent as to determine the color of the flowers. Seed may be planted at any time; it may be sown in the open ground in spring, and for succession during the summer, July sown seed making good winter pot plants.

**MACHET**—Plants strong and erect, pyramidal in shape, with broad thick leaves, and large compact spikes of reddish flowers. This is the best all around variety, suitable either for garden or pot culture. Pkt., 5c; ¼ Oz., 20c.

**GOLDEN QUEEN**—Of very compact growth. Flowers golden-yellow, very ornamental and distinct. Pkt., 5c; ¼ Oz., 15c.

**BISMARCK**—An improved Machet, with massive heads, having larger flowers than any other variety. The odor is very strong and delicious. Pkt., 10c; ½ Oz., 15c.

**MIXED**—A mixture of many choice kinds. Pkt., 5c; ½ Oz., 15c; Oz., 25c.

**NASTURTIUMS** (*Tropaeolum*)**TALL NASTURTIUMS**

**BRIGHT ROSE**—Brilliant bright rose without any tinge of copper or orange.

**BRONZE**—Very distinct slaty mahogany.

**CHAMELEON**—Flowers of different coloring on same plant, passing from pale yellow to brown, with all sorts of combinations in stripes and spots.

**CLOTH OF GOLD**—Brilliant scarlet flowers. Foliage very pale, almost yellow.

**JUPITER**—Very large flowers, clear rich golden-yellow.

**KING THEODORE**—Very dark red, with a velvety overlay and blackish reflections.

**REGELIANUM**—Dark carmine-red with violet suffusion.

**SUNLIGHT**—Flowers of medium size, very clear orange-yellow.

**SCARLET**—Brilliant scarlet flowers and bright green foliage.

**VESUVIUS**—Salmon-rose with beautiful coppery old rose blotch on two petals.

**STAR'S HYBRIDS**—Beautiful flowers of all shades of scarlet, ruby, yellow and terra cotta. Foliage variegated green and white. Pkt., 5c; Oz., 15c.

**TALL FINEST MIXED**—All colors.

All the above, except where noted—Pkt., 5c; Oz., 10c.

**LOBBIANUM**

This class is remarkable for the intense brilliancy and profusion of its flowers, which literally cover the vines, standing up well above the foliage. They are extremely ornamental on trellises.

**LOBBIANUM BLACK PRINCE**—Striking velvety black flowers and dark foliage.

**LOBBIANUM CARDINAL**—Intense scarlet, the deepest, richest, most beautiful color imaginable. The reverse of petals is the same color as the face, and the spur and sepals are also tinted with the rich color.

**LOBBIANUM SPITFIRE**—Stems very long and twining; leaves small and round, bright green. Flowers small to medium, brilliant vermilion-red, slightly veined brown in the throat, borne so freely that the plants show almost as many flowers as leaves.

All the above—Pkt., 5c; Oz., 10c.

**DWARF NASTURTIUMS**

**CHAMELEON**—Flowers the same as the Tall Chameleon.

**EMPRESS OF INDIA**—Small leaves, strongly tinted brown. A multitude of small flowers of brilliant scarlet-red.

**GOLDEN KING**—Beautiful rich golden-yellow.

**RUBY KING**—Flowers of a very peculiar and rich shade approaching strawberry-red with a very slight violet suffusion.

**VESUVIUS**—Salmon-rose blotched coppery old rose.

**DWARF MIXED**—All colors.

**TOM THUMB MIXED**—Plants about one foot in height and one foot across, with foliage variegated white. Flowers large and abundant, of brilliant and varied colors.

All the above—Pkt., 5c; Oz., 10c.

**NEMESIA**

Half hardy annual. Plants form circular bushes six to eight inches in height, covered with brilliant flowers in an extremely wide range of colors, passing from white to poppy-red, through carmine-rose, yellow and orange, many with contrasting blotch. The flowers have a short tube and two unequal lobes; they are borne in terminal clusters. **Mixed**—Pkt., 10c.

**NICOTIANA**

(Sweet-Scented Tobacco Plant)

Easily grown annual. Robust, bushy plants with very large leaves. The flowers have slender tubes three inches long, with borders usually two inches across, having five equal lobes. They open toward evening. Sow seed outdoors in spring.

**AFFINIS HYBRIDS**—Compact plants two feet high. The flowers are of pale rose, mauve, lilac, red, poppy-red and deep violet. **Mixed**—Pkt., 5c.

**SANDERAE**—A very beautiful variety. Flowers of rosy-carmine, reverse of border dull carmine-lake, tube of greenish-white tinted dull carmine-lake. Pkt., 5c.

**SILVESTRIS**—An elegant variety. Plants three feet across, two to three feet high. Gray-green leaves, and large, pure white, very sweet flowers, hanging in racemes. Pkt., 5c.



Masterpiece.

## NIGELLA (Love in a Mist)

An interesting and attractive annual. The flowers are veiled by the thread-like foliage, giving to the plants an unusual appearance. The plants are strong, usually growing one and one-half to two feet in height. The flowers are very good for cutting. Seed may be sown in spring or fall in the open ground.

**MISS JEKYLL BLUE**—Flowers usually semi-double, composed of petal-like divisions, convex on upper surface and cut into unequal sharpened lobes, clear blue in color. Seed pods balloon-shaped. Pkt., 10c.

**MISS JEKYLL WHITE**—Pkt., 10c.

**HISPANICA ALBA**—White Spanish. Flowers white with very conspicuous purplish stamens and anthers. The seed pods are very peculiar in shape, being prolonged at the tips into long curved points. Pkt., 5c.

## OENOTHERA (Evening Primrose)

Biennial blooming the first year from seed. Plants three to three and one-half feet tall, with lanceolate leaves. The very large yellow flowers, three inches across and sweet scented, are arranged on a long terminal spike. They are open from evening until morning. Sow seed outdoors in spring. Pkt., 5c.

## PANSY (Viola Tricolor)

Seed may be sown during May and June in open ground for summer blooming, and during August and September in open ground or cold frame for flowers the following spring. May also be started in greenhouse in late winter.

**AZURE BLUE**—Velvety violet-blue. Pkt., 5c.

**BLACK BLUE**—Giant Pansy. Very dark and velvety. Pkt., 5c.

**BLACK WITH BRONZY CENTER**—Very rich and effective. Pkt., 5c.

**BRONZE**—Bronzy dark-brown. Pkt., 5c.

**CARDINAL**—Brilliant red. Pkt., 5c.

**COQUETTE DE POISSY**—True mauve. Pkt., 5c.

**EMPEROR WILLIAM**—Deep showy Cornflower blue. Large flowers. One of the best for bedding purposes. Pkt., 5c.

**EROS**—Dark velvety brown, edged golden. Pkt., 5c.

**FAIRY QUEEN**—Light blue bordered with white. Very dainty and elegant. Pkt., 5c.

**FIERY FACES**—Bright reddish-brown with gold border and yellow center. Very showy giant Pansy. Pkt., 10c.

**GOLDEN QUEEN**—Beautiful bedding variety. Pure golden-yellow giant Pansy without blotch. Pkt., 10c.

**KING OF BLACKS**—Very large flower of lustrous coal-black. Pkt., 5c.

**LORD BEACONSFIELD**—Purple-violet, top petals shading into white. Pkt., 5c.

**MAHOGANY COLORED**—Flowers small, but very rich and beautiful. Pkt., 5c.

**MAUVE QUEEN**—New. Large flowers, mauve, with large bluish-carmine blotch on one of the lower petals. Pkt., 10c.

**MERCURY**—Superb velvety purple. Very large flower. Pkt., 10c.

**METEOR**—Bright red brown with darker blotch. Very striking and handsome. Pkt., 5c.

**MOURNING BRIDE**—Intense velvety purple with narrow white edge. Refined and elegant flower. Pkt., 5c.

**PRESIDENT CARNOT**—Pure white with a violet blotch on each petal. Pkt., 10c.

**PRESIDENT McKINLEY**—Giant flowers of rich yellow with dark blotch on each petal. Pkt., 10c.

**PRINCE BISMARCK**—Golden bronze with large dark eye. Very large flowers. Pkt., 10c.

**PRINCE HENRY**—Splendid giant Pansy of deepest richest purple-blue. Pkt., 10c.

**PSYCHE**—Velvety violet edged white and with waved petals. Pkt., 10c.

**SNOW QUEEN**—Very large flowers of purest white. Fine bedding variety. Pkt., 10c.

**VULCAN**—Dark red with black blotches. Very beautiful. Pkt., 10c.

## PANSY MIXTURES

**BATH'S EMPRESS**—See Novelties, page 63.

**MASTERPIECE**—(See illustration.) A quite distinct strain, with petals so ruffled and curled that the flowers appear double. They have been called Spencer Pansies from their resemblance to Spencer Sweet Peas. The large flowers are of rich and varied coloring. Pkt., 10c.

**CASSIERS**—Immense flowers, very rich and showy, each one three or five spotted. Pkt., 10c; ½ Oz., 40c.

**BUGNOTS EXHIBITION**—An incomparable strain, producing many rare and beautiful varieties. Flowers blotched and stained, shades of red, bronze and brown predominating. Plants very strong. Pkt., 20c.

**ORCHID OR CATTLEYA-FLOWERED**—Large exquisitely frilled flowers of rare light pastel shades. Pkt., 10c.

**MADAME PERRET**—Large flowers of rose and wine shades. Pkt., 10c.

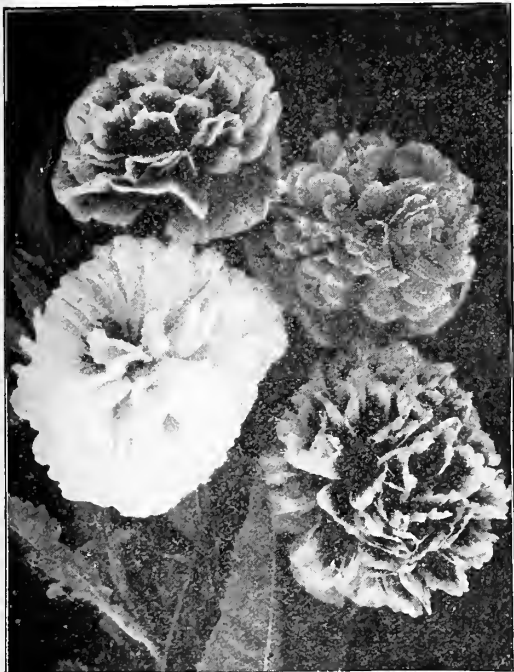
**TRIMARDEAU OR GIANT PANSIES**—Remarkably large flowers of rich and varied shades. Plants hardy and vigorous. Pkt., 10c; ½ Oz., 40c.

**W. B. MIXTURE**—All types and classes. A blend of the choicest strains, including all our named varieties, mixed by ourselves. Pkt., 15c.

## ORNAMENTAL PEPPER

The plants usually average eighteen inches in height, with very small red or yellow fruits. They make very symmetrical specimens and are very charming and decorative when covered with the innumerable brightly colored little fruits, which remain fresh for a very long time. Pkt., 5c.





Ranunculus Poppies.

## DOUBLE ANNUAL

**FAIRY BLUSH**—Great fluffy, globe-shaped flowers, pure white tipped delicate rose. Pkt., 5c; ½ Oz., 15c.

**CARNATION-FLOWERED**—Large, finely formed fringed flowers of wonderful richness of color. Mixed—Pkt., 5c; ½ Oz., 10c; Oz., 15c.

**PEONY-FLOWERED**—Very large double flowers, resembling the Peony. Pkt., 5c; ½ Oz., 10c; Oz., 15c.

**RANUNCULUS-FLOWERED**—Small, finely formed double flowers. Colors mostly slate, white, scarlet, scarlet bordered with rose, deep red and deep red bordered with white. Pkt., 5c; ½ Oz., 10c; Oz., 15c.

**DOUBLE ANNUAL POPPIES MIXED**—Pkt., 5c; ½ Oz., 15c; Oz., 25c.

## PERENNIAL POPPIES

Seed of Perennial Poppies may be sown outdoors in the spring or fall.

**ORIENTAL POPPY, GIANT SCARLET**—Splendid plant growing three feet tall and forming large clumps. Large, hairy, dark green leaves and long strong stems, bearing enormous flowers of dazzling scarlet with large black blotches. Pkt., 10c.

**ORIENTAL HYBRIDS**—Of the same character as the Giant Scarlet, but the flowers are of rare and beautiful colors, white, rose, bright red, scarlet, amaranth, Poppy red, brownish-red, purple-violet, dregs of wine, mauve, lilac, etc. Mixed—Pkt., 10c.

**ORIENTAL VICTORIA**—Beautiful salmon, shaded rose. Pkt., 10c.

**ICELAND POPPIES**—Plants in tufts about one foot high. The delicate silken flowers resemble the Annual Shirley in shape and texture, have a delicate fragrance, and range in color from pure white to orange. They are perennials, but will bloom the first year from seed sown in spring. Mixed—Pkt., 10c.

## PLATYCODON

**CHINESE BELL-FLOWER**—Hardy perennial. The plant is one and one-half to two feet in height, with stiff, slender, slightly branching stems. The flowers are large, broad, bell-shaped, of white, or intense glistening blue.

**MIXED**—Pkt., 10c.

## PENTSTEMON

Hardy perennial. Fine for beds, borders, rock gardens, and useful for cut flowers. Plants one and one-half to two feet in height, with stems somewhat wiry, heavy and erect, terminated by beautiful spikes of flowers ranging in color through all shades of roses, reds and violet, veined and dotted with a second color, and with a white spot in the throat. The flowers have a tubular corolla, one and one-half to two inches in length, the border having five round divisions, forming two lips.

**PENTSTEMON HARTWEGI**—A new, large-flowering strain, with flowers of beautiful and distinct coloring, beautifully marked.

**Mixed**—Containing seed of many named varieties. Pkt., 15c.

## POPIES (Papaver)

### ANNUAL POPPIES

Sow seed in the spring in the open ground. May also be sown in the fall. Plants average two feet in height. The colors are as beautiful and as varied as can be found in any flower, all shades of red and violet, from the deepest and most brilliant to the palest rose and lilac and pure transparent white, nearly always bordered, zoned or blotched with a second color.

### SINGLE ANNUAL

**BLACK PRINCE**—A striking and beautiful flower. Brilliant blackish-brown overlaid violet, with light stamens. Pkt., 5c.

**KING EDWARD**—Beautiful deep scarlet flowers, shaded crimson, with black blotch at the base of each petal. Pkt., 5c.

**SHIRLEY**—Delicately beautiful flowers with silky crinkled petals in shades of blush, white, rose, crimson, salmon, carmine and scarlet, usually blotched and bordered with a second color. They make lovely cut flowers. **Reselected Delicate Shades Mixed**—Pkt., 5c; ¼ Oz., 15c.

**TULIP POPPIES**—Large flowers, two fan-shaped outer petals and two smaller inner petals, of brilliant Poppy-red, with large purple-black spot at base of petal. Pkt., 5c; ¼ Oz., 20c.

**SINGLE ANNUAL POPPIES**—Mixed. Pkt., 5c; ½ Oz., 15c.



Oriental Hybrids.

## PETUNIA

Care must be taken to have the soil for Petunia seed finely pulverized. Sow seed on surface, cover very lightly, and press down with a board. Sowings may be made in open ground, hot bed, cold frame, or boxes in sunny window.

**GIANTS OF CALIFORNIA**—Single flowers four to five inches in diameter, of very heavy texture, nearly all ruffled or fringed, in a great variety of colors, beautifully penciled and blotched. Pkt., 15c.

### SINGLE SMALL - FLOWERED VARIETIES

Height 1½ Feet

**INIMITABLE**—Blotched and striped in finest mixture. Pkt., 5c.

**HOWARD'S STAR**—Flowers vary, but most of them show a five spotted star in white on a ground of bright crimson, or purplish-crimson. Pkt., 5c.

**SINGLE MIXED**—Mixture of the choicest kinds. Pkt., 5c.

### SINGLE DWARF VARIETIES

**ROSY MORN**—Compact, bushy plants. Flowers small, but very numerous, bright rose with white throat. Pkt., 5c.

**SNOWBALL**—Dwarf, bushy plants with snow-white flowers. Pkt., 5c.

**DWARF MIXED**—Pkt., 5c.

## PHLOX DRUMMONDII

One of the most beautiful and satisfactory annuals that can be grown, furnishing an abundance of flowers all summer and autumn, until hard freezing weather. The plants are strong and bushy, the flowers in broad clusters, in the purest and brightest of colors, glowing crimsons and scarlets, soft and delicate rose, lavender, white, chamois, deep violet and carmine, many of them showing an eye of contrasting color, or delicately flushed and shaded. Seed may be sown early in spring in the open ground, or indoors and transplanted.

**TALL VARIETIES**—One foot in height. **White, Scarlet, Rose, Violet, Lilac with White Center, Blood Red with White Center, Isabellina or Pale Buff, Rosy Chamois.** Each, Pkt., 5c; ¼ Oz., 15c.

**TALL GOOD MIXED**—Pkt., 5c; ¼ Oz., 15c.

**TALL W. B. MIXED**—Pkt., 10c; ¼ Oz., 25c.

**HORTENSIFLORA**—A semi-dwarf race, with large umbels, very floriferous, splendid. **Mixed**—Pkt., 10c.

**CECILY**—Dwarf. Charming little plants, six to eight inches in height and very bushy, with broad rounded heads of very large florets. Pkt., 10c.

**STAR AND FRINGED MIXED**—In the Star Phlox each petal ends in a sharp point, giving a star-shaped effect to the flower. The Fringed Phloxes have each petal delicately fringed. **Mixed**—Pkt., 5c; ¼ Oz., 20c.

Imported collection of Phlox Drummondii, 6 varieties—25c.

Imported collection of Phlox Drummondii, 12 varieties—40c.



Giants of California.

## PHLOX DECUSSATA

**PERENNIAL HYBRIDS**—Beautiful hardy perennial. Large branching plants, from one to three, some four, feet in height, with large heads of flowers in pure white, shades of rose, lavender, purple, scarlet and crimson, nearly always showing a contrasting eye, and many of them shaded with a second color. **Mixed**—Pkt., 10c.

## PORTULACCA (Moss Pink)

Tender succulent plants with fleshy, cylindrical leaves, forming a dense mat, thickly set with the large and beautiful flowers, opening only in sunlight. The colors are bright and extremely dazzling and varied, being shades of scarlet, coppery-rose, violet-red, soft rose, also pure white, and white variegated with crimson, rose and purple.

**SINGLE**—Flowers composed of four to six petals, with a mass of beautiful golden-yellow stamens. **Rose, Crimson, White, Coppery-Rose, Yellow, Striped**—Each, Pkt., 5c; ¼ Oz., 20c. **Mixed**—Pkt., 5c; ¼ Oz., 15c.

**DOUBLE**—This seed will usually produce fifty per cent. of double flowers and fifty per cent. single. The double flowers are like little waxen roses. **Mixed, all colors**, Pkt., 10c.

## PYRETHRUM

One of our most valuable hardy perennials. The charming flowers are very lasting when cut. They bloom in May and June and sometimes give a second crop in August and September. The foliage is finely cut and graceful. Average height two feet.

**ROSEUM SINGLE MIXED**—Composite Daisy-like flowers two to three inches across, with yellow central disk, and two or three rows of ray flowers of beautiful velvety texture, varying in color from pure white to rose, flesh and bright carmine, red and purple. Pkt., 15c.

**DOUBLE MIXED**—In the double forms the florets are arranged in a bomb-shaped disk, surrounded by a row of tongue-shaped, drooping ray flowers, sometimes cylindrical, sometimes lanceolate. Pkt., 25c.

## RHODANTHE

Delicately beautiful everlasting. Flowers shaped like inverted cones, made up of membranous scales, lower ones satiny, intermediate rosy-white; inner very beautiful rose. Flat central disk of golden-yellow. Pkt., 5c.



Phlox Drummondii.



**PRIMULA** (Primrose)

**PRIMULA VULGARIS**—The beautiful wild English Primrose. It grows best in shady places. The seed is very slow in germinating and may stay in the ground a year, but once established the plants are quite hardy. The oval oblong leaves are all from the root, the plants forming dense tufts. The flowers are salver-shaped, with five lobes of reversed heart shape, clear yellow with touch of orange at base. Six inches in height. Pkt., 5c.

\***WILSON'S NEW BLUE PRIMROSE**—See Novelties.

**PRIMULA ELATIOR (Polyanthus)**—Munstead strain. Oval oblong hairy leaves forming rosettes, stems three to six inches in height, terminating in an umbel of from eight to twelve flowers, with funnel-shaped corollas. Colors are usually yellowish-white, pale yellow, red-brown and violet, more or less combined with other shades, producing in some flowers tints of copper-brown, brick-red, salmon, mahogany, maroon and purple-violet, many with contrasting central star. This charming and interesting little plant produces its bright blossoms very early in the spring, almost as soon as the snow is off the ground. It blooms the second year from spring sown seed, the flowers coming when the plants are two or three inches in height; after this the plants soon form good sized clumps. **Mixed**—Pkt., 15c.

**RICINUS** (Castor Oil Plant)

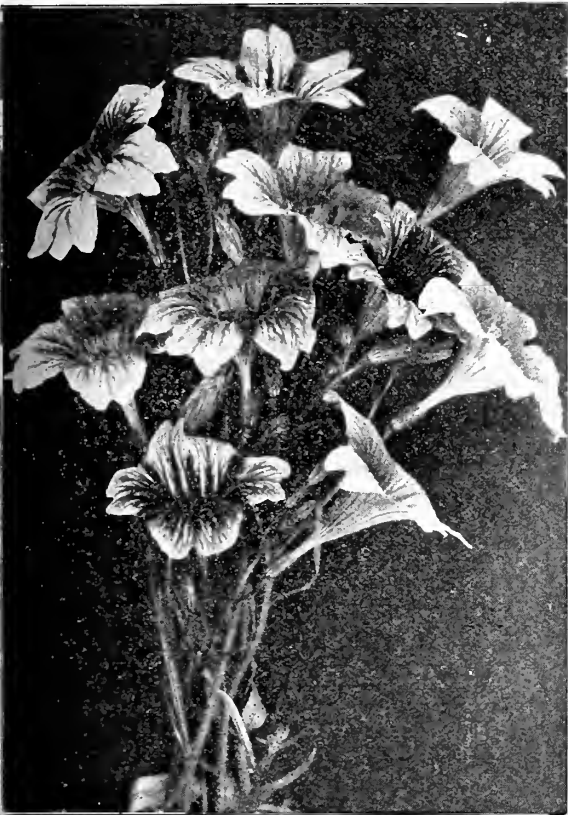
Plant seed in open ground in rich soil, or start indoors and transplant. Allow at least four feet each way.

**CAMBODGENSIS**—Large palm-like leaves of darkest bronze-maroon. Stalks and stems nearly black; six to eight feet. Oz., 10c.

**SANGUINEIS**—Green leaves, red stem and seed; six feet. Oz., 10c.

**ZANZIBARENSIS**—Largest of all. The plants grow ten to twelve feet tall and form perfect pyramids. The beautiful lobed leaves measure two and one-half to four feet across. Oz., 10c; ¼ Lb., 35c.

**MIXED**—All sorts. Oz., 10c; ¼ Lb., 30c.



Salpiglossis.

**SALPIGLOSSIS**

Annual. Plants with slender, erect, slightly branching stems two to three feet in height, foliage rather scant. Large flowers, funnel-shaped, of beautiful velvety texture and wonderful richness of color, in yellow, eddish-brown, dark brown, crimson, scarlet, rose, violet, slaty-purple, all with a sheen of gold in the throat, and exquisitely penciled and marked; several colors are usually combined in one flower. Seed may be started in the house or outdoors. They begin to bloom early and continue until hard frost.

**PURPLE VIOLET**—Pkt., 10c.

**VIOLET VEINED WITH GOLD**—Pkt., 10c.

**BROWN AND GOLD**—Pkt., 10c.

**YELLOW**—Pkt., 10c.

**SALPIGLOSSIS EMPEROR FINEST MIXED**—Pkt., 10c; ½ Oz., 20c.

**Imported Collection of Salpiglossis, 6 varieties**—25c.

**STOCKS**

Stocks are adapted to all purposes, bedding, pot culture, and cut flowers. The entire plant is ornamental, and very symmetrical. The stems are woody at base, branching at summit, the branches leafy, leaves very abundant, of a whitish-green in color. The rosette-like flowers are arranged in spikes and have a spicy and delicious fragrance. Colors are usually white, sulphur, yellow, flesh, crimson, lilac, reddish-purple, bright rose, armine, light violet and violet.

**LARGE-FLOWERING DWARF TEN-WEEKS STOCKS**—

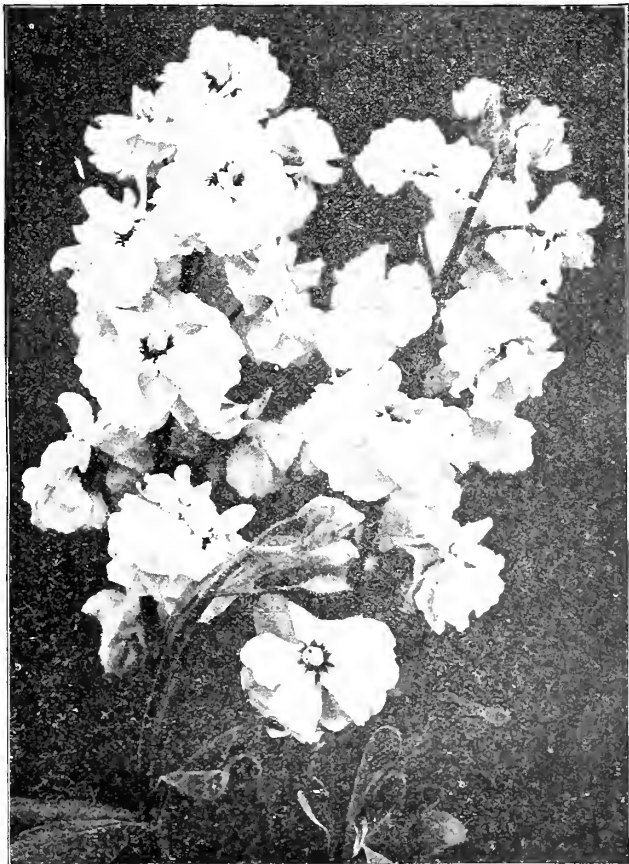
A fine bedding plant and the earliest to bloom. Height one foot. Start seeds indoors and transplant to the open ground in May. All colors mixed. Pkt., 10c; ¼ Oz., 25c.

**Imported Collection of Dwarf Ten-Weeks Stocks, six varieties**—25c.

**GIANT PERFECTION**—Useful for cut flowers and outdoor bedding. Plants grow one and one-half feet tall, and are pyramidal in shape, with numerous side branches covered with double flowers. Start seed indoors in spring. Pkt., 10c; ¼ Oz., 35c.

**Imported Collection of Giant Perfection Stocks, 6 varieties**—25c.

**Imported Collection of Giant Perfection Stocks, 12 varieties**—40c.



Stocks.

**PRINCE BISMARCK**—These Stocks bloom after the Ten-Weeks Stocks have ceased. They form immense bushes two and one-half feet tall, with long spikes of flowers. **White, Rose, Light Blue**—Each, Pkt., 15c.

**BROMPTON or WINTER STOCKS**—Half hardy biennial. Winter Stocks require more time to grow than other kinds. They will flower in fall from seed started indoors early in spring, or in winter from seed sown outdoors in summer and the plants taken up in the fall. Plants are bushy and from eighteen to twenty-four inches tall.

**KELWAY'S BEAUTIFUL BROMPTON**—All colors of Winter Stocks in finest mixture. Pkt., 10c.

## SCABIOSA

A quaint and attractive annual, easily grown and unequalled for cutting. It is also bright and ornamental in the garden, blooming from early summer until winter, if the seed pods are kept picked off. The composite flowers form cushion-like heads and are borne on very long, slender, wiry stems. The colors are white, fleshy-white, azure-blue, cherry and white, lilac, purple, purple and white, black-purple, rose, brick-red, violet-red and violet. The stamens are prominent and add much to the beauty of the flowers. The foliage is handsome and always clean and fresh.

**TALL MIXED**—Two and one-half feet. All colors. Pkt., 5c; ½ Oz., 20c.

**AZURE-BLUE**—Pkt., 5c.

**SNOWBALL**—Pure white large flowering. Pkt., 5c.

**FLESH**—Pkt., 5c.

**SCARLET**—Pkt., 5c.

**\*CHERRY AND WHITE**—Pkt., 5c.

**MOORING BRIDE**—Black purple or dark maroon, with white stamens. Pkt., 5c.

**DWARF MIXED**—Plants more compact, more branching, and more free flowering, forming very elegant little bushes ordinarily one foot in height. The colors are white, azure-blue, carmine, flesh, fiery crimson, lilac, purple and rose. These plants are splendid for edging, and remain in bloom until cut down by frost very late in autumn. Pkt., 5c; ½ Oz., 20c.

## SWEET WILLIAM (Dianthus Barbatus)

Hardy perennial. Plants form tufts one and one-half to two feet in height. Flowers borne in large clusters, either single five-

petaled, or double, in very beautiful shades, and very varied, ranging from rosy-flesh to the most intense blood-red; sometimes crimson, purple-violet or white, dotted, striped, bordered and shaded with charming effect.

**DOUBLE MIXED**—Pkt., 5c; ¼ Oz., 20c.

**SINGLE MIXED**—Pkt., 5c; ¼ Oz., 15c.

**DOUBLE AND SINGLE MIXED**—Pkt., 5c; ¼ Oz., 15c.

**PINK BEAUTY**—Lovely salmon-pink. Pkt., 5c.

**SCARLET BEAUTY**—Intense scarlet. A bed of this variety is very striking. Pkt., 15c.

**PURE WHITE**—Pkt., 5c.

**HARLEQUIN**—Each head contains many shades of color. Pkt., 10c.

**\*NIGRICANS**—A very distinct and remarkable variety. The foliage is tinted blackish-brown; the flowers are almost black, with light stamens giving a velvety bloom to the clusters. Pkt., 5c.

**AURICULA-EYED**—Various shades, each flower having a clearly defined eye. Pkt., 10c.

Imported Collection, 6 varieties—30c.

## SALVIA (Scarlet Sage)

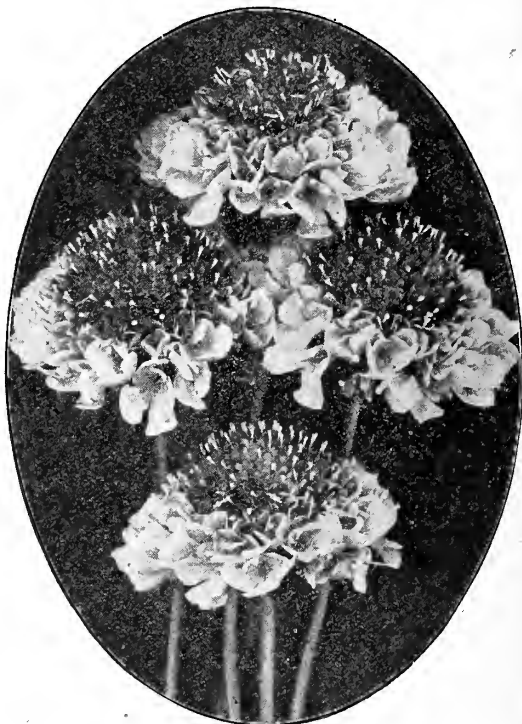
A standard bedding plant; also useful for window boxes, pot plants and cut flowers. Start seed indoors and transplant to the open.

**SPLENDENS**—Branching plant two and one-half to three feet tall. Long spikes of intense scarlet flowers. Pkt., 5c.

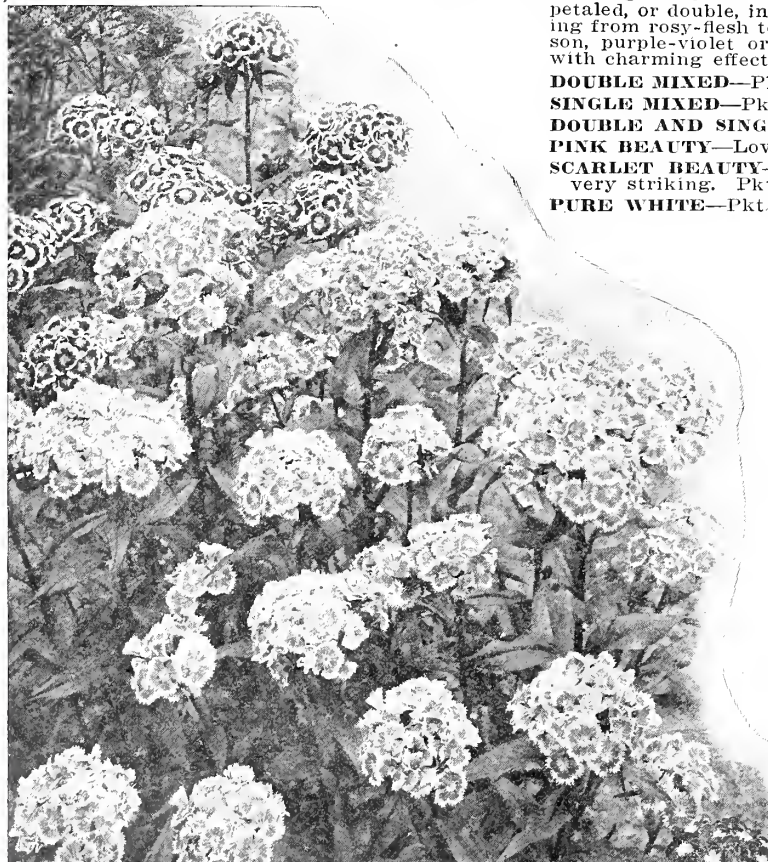
**FIREBALL**—Bushy plant one and one-half feet tall, almost covered by the spikes of fiery scarlet flowers. Plants begin blooming the first of July and continue until frost. Pkt., 15c.

## SCHIZANTHUS

A very dainty and pretty annual. Plants neat and compact, one foot in height, with fern-like and graceful foliage of tender green, completely covered by multitudes of elegant little butterfly-like flowers, in white, bright rose, lilac, carmine and violet. Pkt., 5c.

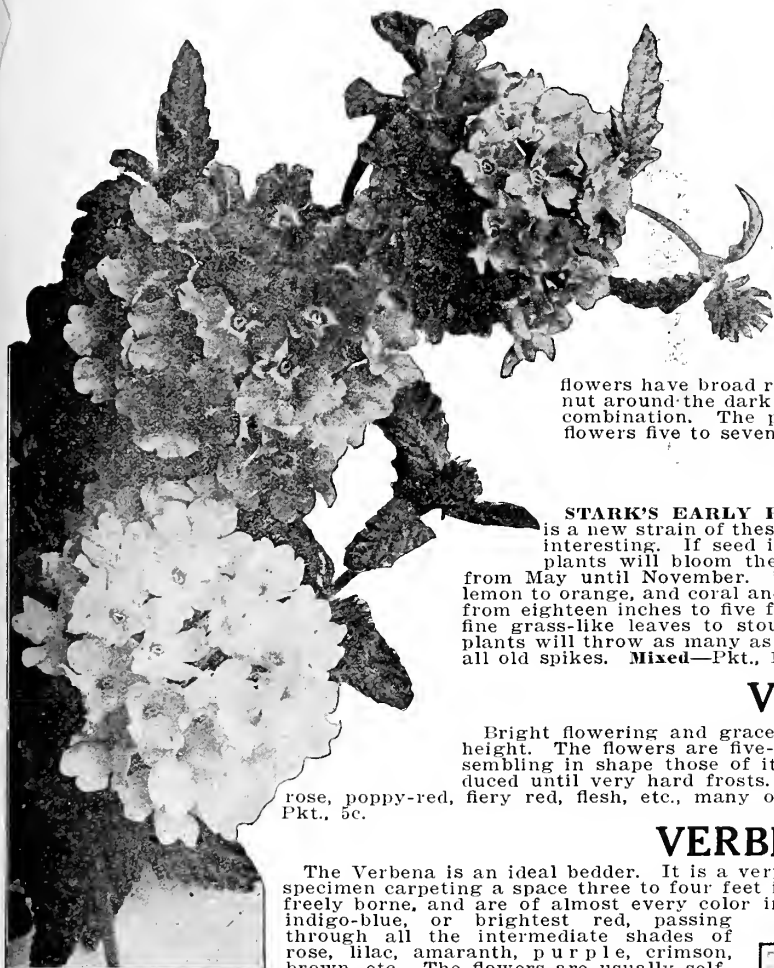


Scabiosa.



Sweet William.





Verbena.

bordered with a second color, or have a contrasting eye or star.  
**FINE MIXED**—All colors. Pkt., 5c; ½ Oz., 10c.  
**MAMMOTH MIXED**—A mixture composed of the finest mammoth-flowering sorts. Pkt., 10c; ½ Oz., 25c.  
**AURICULA-FLOWERED**—Large brilliant flowers with white eye. Pkt., 5c.  
**STRIPED**—Mixed. Pkt., 5c.  
**DEFIANCE**—Intense scarlet. Small flowers. Fine for bedding. Pkt., 5c.  
**PINK SHADES**—Pkt., 5c.  
**RED SHADES**—Pkt., 5c.  
**BLUE AND PURPLE SHADES**—Pkt., 5c.  
**PURE WHITE**—Pkt., 5c.  
**DWARF MIXED**—Compact little plants five to six inches high, eighteen inches across, forming a dense mat. Pkt., 10c.  
**SALMON QUEEN**—Plant dwarf, strong, very branching. Flowers of beautiful salmon-pink with white eye. Splendid bedder. Pkt., 10c.

## VIOLA CORNUTA

**TUFTED PANSIES**—Perennial. Two to six inches. The Tufted Pansies have smaller flowers than the regular Pansies, but they bloom so profusely that they are preferable for bedding purposes. The plants are hardy and vigorous, forming compact tufts, blooming all summer from seed sown in early spring. The colors are very clear and brilliant, mostly shades of light and dark blue, yellow, lilac and violet. The plants should be given some protection in winter.

Mixed, all colors—Pkt., 10c.

## WALLFLOWER

Tender perennial, living outdoors in winter in a mild climate, but not hardy in the North, where they must be wintered in cold frames. The plants are one and one-half feet tall, and have woody stems. The flowers are of velvety texture, have a rich and spicy odor, and are borne on spikes. The colors are yellow, crimson, purple, apricot and reddish-brown.

**SINGLE MIXED**—Pkt., 5c.

**DOUBLE MIXED**—Pkt., 10c.

## SUNFLOWER (Helianthus)

**MAMMOTH RUSSIAN**—Gigantic plants with enormous flowers, one foot on diameter. Oz., 5c.

**MINIATURE HYBRIDS**—Plants three to four feet in height. Charming little flowers, single, semi-double and double, in cream, orange and golden-yellow. They are produced in great profusion, make a great display in the garden and are fine for cutting. Mixed—Pkt., 5c.

**DOUBLE CHRYSANTHEMUM-FLOWERED**—Six feet. Rich golden-yellow flowers three to six inches in diameter, the top-most flower being the largest. The flowers are in the form of very full disks, formed of tubular florets. Plant five to six feet tall. Pkt., 5c; Oz., 15c.

**SUTTON'S RED SUNFLOWER, or Gaillardia Sunflower**—This is a new and very attractive variety. The majority of the

flowers have broad rays, yellow at the tips, with a zone of chestnut around the dark central disk, forming a rich and harmonious combination. The plants grow five to seven feet tall and the flowers five to seven inches in diameter. Pkt., 10c.

## TRITOMA

**STARK'S EARLY PERPETUAL FLOWERING HYBRIDS**—This is a new strain of these showy border plants and one which is most interesting. If seed is started in heat in February or March, the plants will bloom the first year. Well established plants bloom from May until November. The colors embrace shades of yellow, from lemon to orange, and coral and salmon to deep crimson. The height varies from eighteen inches to five feet in the spikes, and the foliage from quite fine grass-like leaves to stout leaves like the Yucca. Well established plants will throw as many as twenty spikes at a time. Be sure to cut off all old spikes. Mixed—Pkt., 10c.

## VISCARIA

Bright flowering and graceful annual, with slender plants one foot in height. The flowers are five-petaled, one and one-half inches across, resembling in shape those of its relative, the Corn Cockle, and freely produced until very hard frosts. The colors are white, ashy-blue, beautiful rose, poppy-red, fiery red, flesh, etc., many of them eyed with a second color. Mixed—

Pkt., 5c.

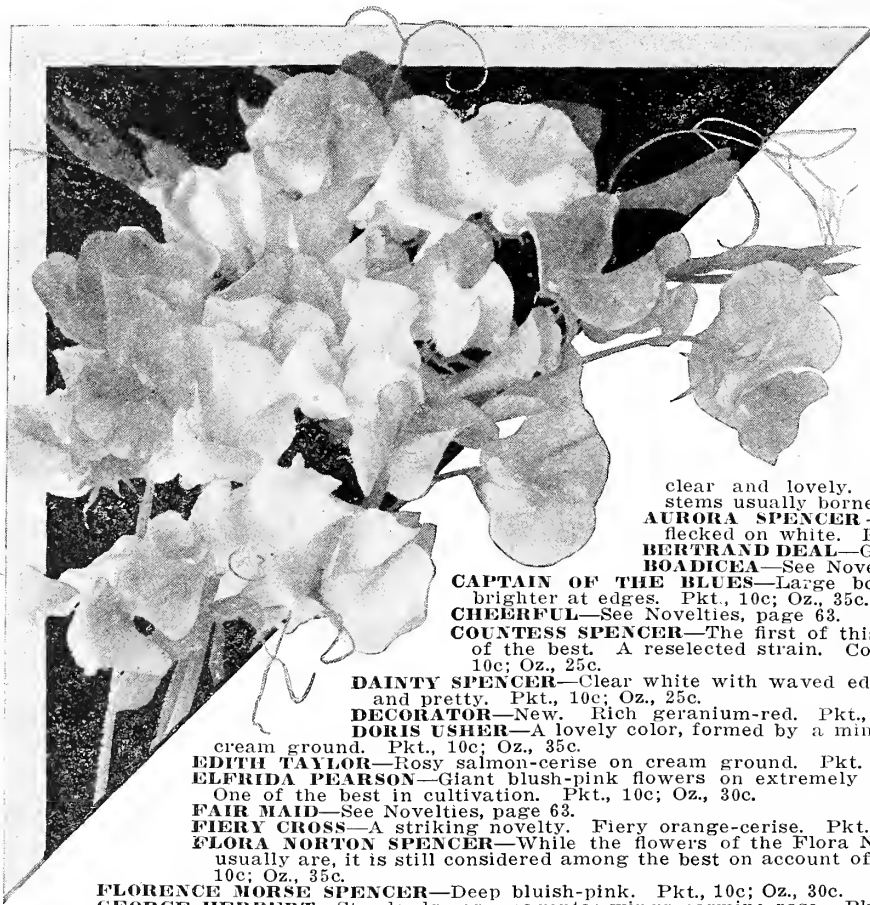
## VERBENA

The Verbena is an ideal bedder. It is a very graceful plant with handsome foliage, each specimen carpeting a space three to four feet in diameter. The large trusses of flowers are freely borne, and are of almost every color imaginable, varying from purest white to in-



Tritoma.

# SPENCER SWEET PEAS



The characteristics of Spencer Sweet Peas are: vigorous vines, attaining a height of six to ten feet; very long, strong stems; immense waved flowers; new and beautiful colors in wonderful combinations. The varieties listed below (with one or two exceptions where the flowers are medium in size, but esteemed for the beauty of their coloring) possess these characteristics. Cultural directions mailed free upon application.

**AFTERGLOW**—Standards violet-blue shaded rosy-amethyst; wings electric blue. Pkt., 10c; Oz., 50c.

**AMERICA SPENCER**—Carmine-red and white striped. Pkt., 10c; Oz., 30c.

**APPLE BLOSSOM SPENCER**—One of the most charming varieties we have ever grown. Exquisite waved flowers with standards of bright rose and wings of blush-rose. Pkt., 10c; Oz., 30c.

**ASTA OHN**—Pale violet-lake, very clear and lovely. Large beautiful flowers on long stems usually borne in fours. Pkt., 10c; Oz., 25c.

**AURORA SPENCER**—Bright orange-rose mottled and flecked on white. Pkt., 10c; Oz., 30c.

**BERTRAND DEAL**—Giant pale rosy-lilac. Pkt., 10c; Oz., 35c.

**BOADICEA**—See Novelties, page 63.

**CAPTAIN OF THE BLUES**—Large bold flowers of clear purplish-blue, brighter at edges. Pkt., 10c; Oz., 35c.

**CHEERFUL**—See Novelties, page 63.

**COUNTESS SPENCER**—The first of this lovely race, and still counted one of the best. A reselected strain. Color, clear pale purplish-rose. Pkt., 10c; Oz., 25c.

**DAINTY SPENCER**—Clear white with waved edges of bright rose. Very graceful and pretty. Pkt., 10c; Oz., 25c.

**DECORATOR**—New. Rich geranium-red. Pkt., 10c.

**DORIS USHER**—A lovely color, formed by a mingling of buff and bright rose on a cream ground. Pkt., 10c; Oz., 35c.

**EDITH TAYLOR**—Rosy salmon-cerise on cream ground. Pkt., 10c; Oz., 50c.

**ELFRIDA PEARSON**—Giant blush-pink flowers on extremely long stems, always borne in fours. One of the best in cultivation. Pkt., 10c; Oz., 30c.

**FAIR MAID**—See Novelties, page 63.

**FIERY CROSS**—A striking novelty. Fiery orange-cerise. Pkt., 10c.

**FLORA NORTON SPENCER**—While the flowers of the Flora Norton are not so large as Spencers usually are, it is still considered among the best on account of its beautiful pale blue color. Pkt., 10c; Oz., 35c.

**FLORENCE MORSE SPENCER**—Deep bluish-pink. Pkt., 10c; Oz., 30c.

**GEORGE HERBERT**—Standards rosy-magenta; wings carmine-rose. Pkt., 10c; Oz., 30c.

**HELEN GROSVENOR**—Salmon and orange-pink. Pkt., 10c; Oz., 35c.

**HELEN LEWIS**—Standards salmon-carmine overlaid deep cerise; wings a blending of rosy-scarlet and rose. Very wonderful bright and beautiful. It is impossible to describe this flower; one must see it to appreciate its soft and glowing richness of color. Pkt., 10c; Oz., 30c.

**HELEN PIERCE SPENCER**—White tinted and delicately penciled with blue. Pkt., 10c; Oz., 50c.

**HERCULES**—Bright rose shaded mauve. A giant even among Spencers. Pkt., 10c; Oz., 45c.

**ILLUMINATOR**—A new and almost indescribable combination of colors. The standards are salmon-carmine; wings deep rose tinted carmine-lake. Pkt., 10c; Oz., 35c.

**KING EDWARD VII**—Rich carmine-scarlet. Pkt., 10c; Oz., 25c.

**KING MANOEL**—Very large flowers, dark glossy maroon. Pkt., 10c; Oz., 40c.

**KING WHITE**—Giant flowers of glistening immaculate white. Pkt., 10c; Oz., 45c.

**LORD FISHER**—See Novelties, page 63.

**LOUVAIN**—See Novelties, page 63.

**MARGARET ATLEE**—Salmon old rose on cream-white ground. Pkt., 10c; Oz., 40c.

**MARGARET MADISON**—Very pale clear azure-blue. An improved strain of this beautiful variety. Pkt., 10c; Oz., 40c.

**MINNA BARNABY**—See Novelties, page 63.

**NEW MIRIAM BEAVER**—The new and fixed strain of this wonderful Spencer. The coloring is soft and lovely, and might be described as soft salmon-pink on cream ground, lightly overlaid with soft hydrangea-pink; color evenly distributed over both standard and wings. Flowers very large, often double, borne four to a spray. Pkt., 15c.

**MRS. CUTHBERTSON**—Standards lilac-rose; wings bluish-white. Pkt., 10c; Oz., 30c.

**MRS. E. WRIGHT**—See Novelties, page 63.

**MRS. RUTZAHN**—One of the loveliest. Very pale apricot flushed delicate pink. Flowers arranged in most graceful sprays. Pkt., 10c; Oz., 25c.

**IMPROVED MRS. RUTZAHN**—See Novelties, page 63.

**OTHELLO SPENCER**—Rich deep maroon. Pkt., 10c; Oz., 35c.

**PRIMROSE**—Very pale primrose or amber-white. Pkt., 10c; Oz., 30c.

**RAINBOW**—Soft rose flaked and lined on white. Exceptionally large and very attractive. Pkt., 10c; Oz., 40c.

**ROBERT SYDENHAM**—Glowing salmon-orange with not the least tint of rose. Pkt., 15c.

**ROSABELLE**—Brilliant carmine-rose. Pkt., 10c; Oz., 40c.

**ROSINA**—Bright rosy-heliotrope with a distinct wire edge of soiferino-red on a cream ground. One of the largest Sweet Peas ever introduced and distinct from anything ever seen in this flower. Pkt., 15c.

**ROYAL PURPLE**—Deep rich purple, gorgeous in bright sunlight. Pkt., 10c; Oz., 50c.

**SENATOR SPENCER**—Seal-brown and claret striped on white. Pkt., 10c; Oz., 30c.

**STIRLING STENT**—Salmon-carmine overlaid bright rosy-scarlet. One of the most brilliant. Pkt., 10c; Oz., 40c.

**SURPRISE**—See Novelties, page 63.

**TENNANT**—A large and noble flower elegantly formed. Bright rosy-purple, the best of this color. Pkt., 10c; Oz., 30c.

**THOMAS STEVENSON**—A gorgeous flower. Standards fiery madder-red; wings rosy-pink. Pkt., 10c; Oz., 40c.

**WEDGEWOOD**—Very pale silvery aniline-blue. Pkt., 10c; Oz., 40c.

**WHITE QUEEN**—Large elegantly formed flowers of great beauty and substance. Pkt., 10c; Oz., 30c.

**YARRAWA**—A new early flowering or Christmas type. Seed sown in the greenhouse in early October will be in bloom at Christmas and continue to bloom for a long time. When sown outdoors it will bloom two weeks before the summer flowering kinds. The color is bright rose on a cream ground, wings lighter. Pkt., 15c; Oz., \$1.00.

**SPENCER MIXED**—A superb mixture, blended in proper proportions of light and dark, soft and brilliant shades. 10c per pkt.; 3 pkts. for 25c (75 to 100 seeds); 30c per oz.; 2 oz., 50c; ¼ Lb., 85c; Lb., \$3.00.

## EARLY FLOWERING SPENCERS

See Novelties, page 63.



## SPECIAL MIXTURES SPENCER SWEET PEAS

**DEEP AND BRILLIANT SHADES**—Oz., 35c.  
**PINK AND ROSE SHADES**—From very pale to deep pink.  
Oz., 30c.  
**LAVENDER SHADES**—Oz., 35c.

## GRANDIFLORA SWEET PEAS

The old-fashioned Grandiflora Sweet Peas have been overshadowed of late years by the Spencers. We give below a list of the best varieties.

**GRANDIFLORA MIXED**—All the best colors in well balanced mixture. Pkt., 5c; Oz., 10c; ¼ Lb., 30c; Lb., 85c. Any of the varieties listed below: Pkt., 5c; 6 Pkts., 25c; Oz., 15c; ¼ Lb., 40c; Lb., \$1.25.

**WHITE WONDER**—A lovely variety. Large, beautifully formed double flowers of pure white, on long stems. Usually borne four to a spray, produced in masses on the tall and vigorous vines.

**HELEN PIERCE GRANDIFLORA (Special)**—Extremely beautiful. Pure white ground, penciled blue, like Helen Pierce Spencer. Flowers are large and beautifully formed and cover the vines, which grow to a great height.

**BLANCHE FERRY**—A delightful variety. The vines are literally covered by the charming flowers which have white wings and bright rose standards. Vigorous grower and always reliable.

**AMERICA**—Bright red and white striped.  
**BLACK KNIGHT**—Deep maroon. Large flowers.

**COCCINEA**—Pure bright cerise.

**DAINTY**—Clear white with pink picotee edge.

**DOROTHY ECKFORD**—Pure white.

**EMILY HENDERSON**—Pure white; very early.

**KING EDWARD VII**—Bright carmine-scarlet.

**LADY GRIZEL HAMILTON**—The best lavender Grandiflora. A beautiful flower, color clear and silvery.

**LORD NELSON**—Navy-blue.

**PRIMA DONNA**—Clear, lovely pale rose.

**QUEEN ALEXANDRA**—Intense scarlet.

## SWEET PEA COLLECTIONS

75 Cent Collection, Value \$1.50

Fifteen Choice Spencers

White—King White.  
Crimson—King Edward VII.  
Maroon—King Manoel.  
Picotee edge—Dainty.  
Carmine—George Herbert.  
Orange and rose—Helen Lewis.  
Pale blue—Wedgewood.  
Blush pink—Florence Morse.

Bright rose—Hercules.  
Lavender—Asta Ohn.  
Primrose—Primrose.  
Red and white striped—America.  
Salmon-carmine—Illumination.  
Rose and blush—Apple Blossom.  
Rosy-purple—Tenant.

50 Cent Collection, Value \$1.00

Ten Choice Spencers

Lavender—Asta Ohn.  
Light blue—Flora Norton.  
White—King White.  
Crimson—King Edward VII.  
Maroon—Othello.  
Pale rose—Countess Spencer.

Orange and rose—Helen Lewis.  
Blush-pink—Elfrida Pearson.  
Apricot and rose—Mrs. Routzahn.  
Carmine—George Herbert.

25 Cent Collection, Value 50 Cents

Five Choice Spencers

White—King White.  
Crimson—King Edward VII.  
Lavender—Asta Ohn.

Maroon—Othello.  
Blush-pink—Elfrida Pearson.

## ZINNIAS

**TALL DOUBLE GIANT**—Vigorous branching plants two and one-half to three feet tall. Double flowers four to six inches in diameter in white and shades of crimson, yellow, scarlet, salmon, rose, carmine and purple. **Mixed**—Pkt., 10c; ¼ Oz., 40c.

**WHITE, CRIMSON, SCARLET, ROSE, GOLDEN-YELLOW**—Each, Pkt., 10c.

Imported Collection of Large Flowered Zinnias, 6 varieties—25c.

Imported Collection of Large Flowered Zinnias, 12 varieties—40c.

**DWARF ZINNIAS**—Plants and flowers intermediate in size between the Tall Double Giant and the Lilliput. Pkt., 5c; ¼ Oz., 10c.

**LILLIPUT ZINNIAS**—Handsome little bushes, about one foot in height, compact and elegant in form, thickly set with the bright and charming very small flowers, which are very double and formed with the utmost regularity and nicety. They bloom from early summer until frost. A border of these beautiful little Zinnias always attracts attention. **Mixed**—Pkt., 10c; ¼ Oz., 25c.

**LILLIPUT VERY DWARF SCARLET**—This variety and the very Dwarf Golden Yellow are derived from the above, and have still dwafier plants and still smaller blossoms.

**LILLIPUT VERY DWARF SCARLET**—Pkt., 10c.  
**LILLIPUT VERY DWARF GOLDEN-YELLOW**—Pkt., 10c.

## COLLECTION OF ANNUAL FLOWERS

Nineteen Packets for 50 Cents

Asters Mixed, Sweet Peas Spencer Mixed, Sweet Alyssum, Calliopsis Mixed, Corn Flowers Mixed, Sweet Sultan Mixed, Cosmos Tall Mixed, W. B. Mixture Single and Double Pinks, Gailardia Mixed, Mignonette Mixed, Marigolds Tall French Mixed, Nasturtiums Tall Mixed, Giant Pansies, Petunia Mixed, Phlox Drummondii Tall Mixed, Annual Poppies Mixed, Scabiosa Tall Mixed, Verbena Mixed, Zinnia Tall Double Giant Mixed.

## FERTILIZERS FOR FLOWERS

Full directions on each package

**DRIED BLOOD**—Splendid for roses, carnations, all potted plants, Sweet Peas; wherever quick action is desired. Much safer than Nitrate of Soda. 5-lb. cartons, 50c; 10-lb. cartons, 85c.

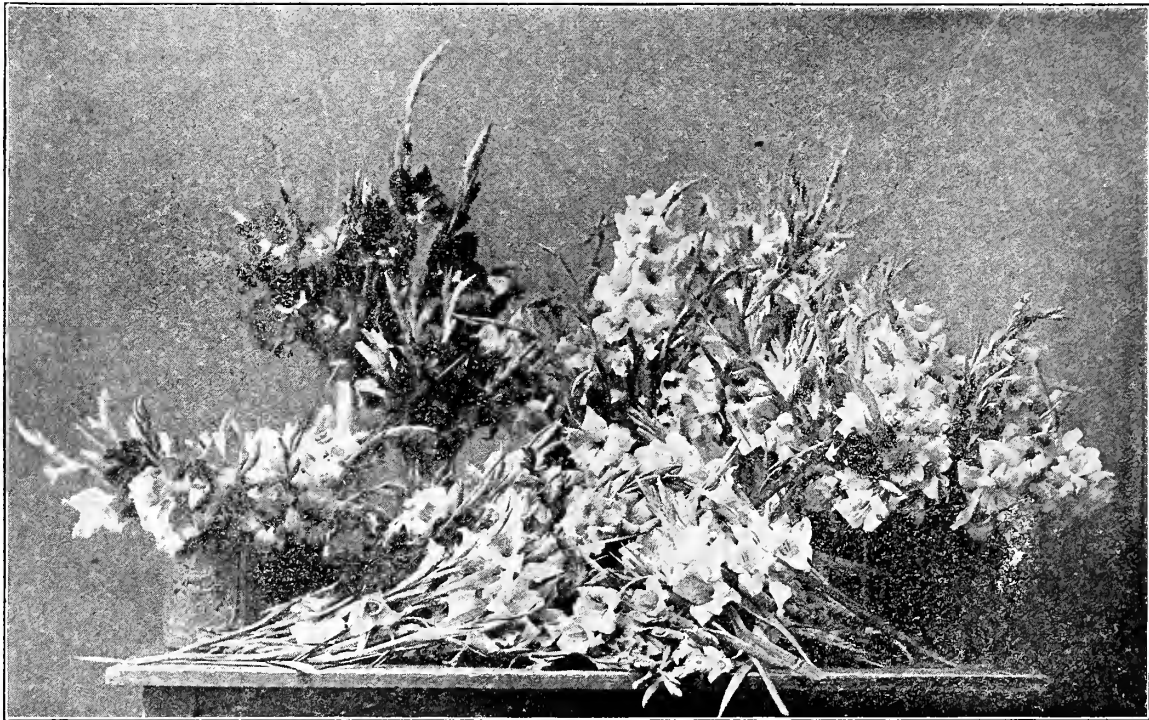
**PLANT FOOD 2-8-1**—Excellent for house plants, shrubs, trees, lawns and gardens. 5-lb. cartons, 25c; 10-lb. cartons, 40c; 25-lb. cartons, 70c.

**GROUND BEEF BONE (Steamed)**—Nothing better for roses, potted plants, all flowers, vegetable and field crop. 5-lb. cartons, 25c; 10-lb. cartons, 40c; 25-lb. cartons, 70c.

**GROUND DRIED SHEEP MANURE**—For flowers, vegetables and field crops. Adds humus as well as fertility. Can be used for liquid manure. 5-lb. cartons, 25c; 10-lb. cartons, 40c; 25-lb. cartons, 70c.



Zinnias.



## GLADIOLI

BY CHAS. B. WING

**F**ROM childhood I have liked nearly all of the flowers. This is one of my favorites. Every other flower lover will like it equally well when he becomes acquainted with it. Our little village scarcely knew what Gladioli were until The Wing Seed Company showed it, and now everyone delights in them, and my wife, who was only moderately interested in the beginning, now says that they are wonderful, more satisfactory than the rose and equally beautiful. At first she thought I had entirely too many varieties. Now she watches as eagerly as I do when each new one opens out, and both of us are disappointed when we have nothing further in this great procession to follow. They are so easily handled, so hardy and vigorous, with such a wonderful variety of colors, and if planted in succession their blooming season is so long that their culture is a positive delight. They may be planted in succession from about May 1st to the last of June. So handled we obtain a constant procession of bloom from the last of June until the twentieth of October. During the heat and drouth of the summer when many of our flowers either require artificial water or else will perish, most of the Gladioli bloom bravely along, some varieties apparently not affected at all by the most intense heat or the most severe drouth, and all varieties that we grow holding up very bravely. As I write this on October 23d, we have just gathered what may be the last bouquet from our grounds, although we have had many severe freezes before this.

As to the care of the plants, it is extremely simple. Plant the bulbs five or six inches deep, preferably in succession, beginning May 1st and perhaps ending June 15th. Do not place the plants in direct contact with manure. Space the bulbs four inches apart. It is better to keep the soil stirred between plants all summer in order to conserve the moisture. They do well on any kind of soil and will stand a moderate amount of shade nicely. The past season my children had a bed which was shaded in the afternoons. Their bloom was superior to my own, the main field, of course, being out in the open sun.

If you are going to properly appreciate the Gladioli, cut the spike off as soon as the first blooms open and place in vases in the house. In very hot weather set the vases in the cellar for twenty-four hours. In cutting the spike do not cut any more foliage than you can help, or you will weaken the bulb. Late in the fall, before the ground freezes, dig the bulbs, cutting off the top an inch above the bulb, and keep in the cellar over winter. If you allow the flowers to remain on the plant without cutting, they will exhaust the bulb, and anyway they are much finer when opening out in the house.

We grew the past year between three and four hundred varieties, secured from both American and European sources. We have selected just the choicest ones from this collection and really believe that we have the finest assortment there is in America today.

You need not be afraid to buy cheap ones. Some of the finest varieties in existence are very moderate in price. High priced varieties are in most cases no novelties, as the term is generally used, that is, something new which will become much cheaper in a few years. Many of these high priced varieties multiply so very slowly that they never will be cheaper than they are today. I think that American breeders excel in bright, fresh or striking colors. The French, I think, excel in wonderful combinations of soft colors. Some of their productions remind one of an opal, its colors changing and never showy, but wonderful just the same.

## GENERAL LIST OF GLADIOLI

### GLADIOLI PRICES ARE PREPAID.

Varieties marked with an asterisk (\*) we are importing from France, and offer subject to our receiving the stocks.

**AFTERGLOW**—Flesh pink, tinted salmon-carmine with magenta blotch. An unusual and attractive combination of colors. Flowers well opened, three and one-half inches in diameter. 60c each; \$6.00 dozen.

\***ALBERT FIRST**—Mammoth spike, moderately compact, strikingly vigorous. Flowers fleshy-white, suffused pale rose. Tip of petals lightly penciled light rose. Throat pure white without blotch; midrib pale to amber white.

Bell type, petals very broad ovate, lightly ruffled, of wonderful substance. A noble and wonderfully beautiful flower. Each, 25c; \$2.50 dozen.

**AMERICA**—Ground pure white. Reverse of petal pale lilac-rose, giving the inside a very fine suffusion of pale lilac by reflection. Very faintly flecked old rose, touched with violet-rose in throat. Anthers lilac. Flowers large, correctly placed. 5c each; 50c dozen.



**ANILINE**—Cochineal-carmine, overlaid dark velvety crimson-red. Throat cochineal-carmine, shading into pale carmine-lake. Bottom of throat rosy-white, sanded cochineal-carmine. Tubular bell type; two and one-half inches in diameter. A glowing jewel. Color rich but not flashy. 25c each; \$2.50 dozen.

\***ANGELIQUE**—Pure white, slightly suffused pale lilac. Throat ivory-white. Reverse of petals faintly penciled rose Nilsson, which gives a faint suffusion to interior of throat. Inside slightly sanded rose Nilsson. Spike compact. Eight flowers open at once; three inches. Petals moderately ruffled. 15c each; \$1.50 dozen.

**ANTOINETTE**—See Novelties and Specialties.

**ARRIERE GARDE**—Enormous flowers; salmon-rose flamed slate and violet towards the extremities of division. Blotch and middle line creamy-yellow. Flowers broad, petals very broad. Three and three-fourths inches. Plant vigorous and tall. Beautiful. 35c each; \$3.50 dozen.

\***ARISTOPIANE**—Pure white with a rose suffusion, somewhat flecked pale rose; throat faintly lined with amaranth on one petal. Flowers two and one-fourth inches. Good spike. 5c each; 50c dozen.

**AZALEA**—See Novelties and Specialties.

**BADENIA**—See Novelties and Specialties.

**BALTIMORE**—Reddish old rose with conspicuous claret blotch, merging into a yellowish-white at margin. Three and one-half inches. Good spike. Flowers well placed. Each, 10c; \$1.00 dozen.

**BARON HULOT**—Violet-purple, very dark on petal tips; light on upper petals in throat. Lower petals a rich pansy-violet with fleck of primrose-yellow on mid-vein. Anthers lilac. Flowers two and one-half inches. Good spike. Each, 5c; 50c dozen.

**BERKSHIRE**—Pure white with reflection of rose Hermosa reflected from reverse of petals. A few flecks of pale old rose. Narrow line of fuchsine on midribs of two lower petals, shading into lilac-rose. Touched at outer edge and deep in throat with primrose-yellow. Three and three-fourths inches. Flowers not crowded; excellent substance. 20c each; \$2.00 dozen.

\***BARONNE D'VOLEY**—See Novelties and Specialties.

**BERLINIA**—Center of flower rose Hermosa; deeper on edges and edges feathered slaty-violet. Midribs on upper petals glistening pure white. Lower petals on edges mingling of carmine-lake and slaty-violet. Midribs on tips of lower petals cream-white, very clearly defined. Throat striped crimson. Flowers well opened; very heavy texture. Four inches. Each, 25c; \$2.50 dozen.

**BERTREX**—See Novelties and Specialties.

**BLERIOY**—See Novelties and Specialties.

**BLUE JAY**—Three upper petals Ageratum-blue, overlaid darker; three lower amber-white stippled and bordered slightly deeper Ageratum-blue, with strangely contrasting blotch of deep rosy-magenta. Very unique and distinct. Three inches. 25c each; \$2.50 dozen.

**BLACK PANSY**—See Novelties and Specialties.

**BRENCHLEYENSIS**—The Mother of all Gladioli. Roseate-orange; outer edge of petals penciled purple-brown; throat touched with canary-yellow and old carmine-red lines. Anthers lilac. Three in. Each, 5c; Doz., 35c.

**CALIFORNIA**—Pure mauve; slightly flecked lilac-rose. Small carmine-white blotch; throat touched with deep mauve. Three inches. 20c each; \$2.00 dozen.

**CANARY BIRD**—Pale buttercup-yellow; deeper in throat; petals lanceolate. Half open type. Three inches. 10c each; \$1.00 dozen.

**CANDIDUM**—Dense spike; small lily-like flowers; snow-white and rose-white mingled. A few inconspicuous markings, all bright rose, on some of the petals. Throat amber-white; petals recurved. A chaste and lovely flower. Two and one-half inches. 15c each; \$1.50 dozen.

\***CHARLES BERTHIER**—Beautiful bright violet-rose; deeper around border. Middle line and large blotch on lower petals pure white. Anthers white with slight touch of violet-rose. Vigorous. Very long spike. Large flowers well opened. Three inches. Magnificent. Each, 15c; \$7.50 dozen.

**CHICAGO WHITE**—Pure white with narrow lines. Crimson-carmine on midribs of three lower petals, surrounded by a little amber. Petals slightly reflex. Early; a forcing variety. Several flowers out at one time. Each, 10c; \$1.00 dozen.

**CHRISTINE MARGARET KELWAY**—Pure white, flushed pale rose. Outside of petals darker than inside. Throat pale primrose-yellow touched with amaranth. Delicate colors. Three and one-half inches. Flowers well placed. 15c each; \$1.50 dozen.

**COUNTESS OF ANNESLEY**—Pale rose Nilsson, flamed carmine-lake. Throat primrose-yellow, mingled with and surrounding some rosy-magenta. Anthers lilac; flowers three inches; orchid type, petals ovate. The effect of this flower is very bright and cheerful. Several open at one time. Each, 35c; \$3.50 dozen.

**CREMILDA**—Pale flesh, or the Chair rose of France, with a tiny touch here and there of amaranth, a soft and pleasing combination. Flower two and three-fourths inches; excellent spike. 15c each; \$1.50 dozen.

**CYMBELINE**—Rich dazzling-scarlet, slightly mottled darker, throat paler, faint touches of violet around edges of petals. Faint marking of reddish-purple on lower petals. Very compact spike; petals ruffled; bell type; medium size. Very strong and vigorous. 25c each.

**DAWN**—Mauve-rose with slight tinting of flesh-pink. Throat slightly clouded violet-rose. Anthers violet. Stigmas purple-rose. Four inches. Arch type; very fine. Each, 15c; \$1.50 dozen.

**DAYBREAK**—Rose Eglantine. Throat veined cochineal-carmine over creamy-white, and bordered by creamy-white band. Somewhat resembles Halley. Three and three-fourths inches in diameter. Bright and fresh. Each, 40c; \$4.00 dozen.

**DAYTONA**—See Novelties and Specialties.

\***DEUIL DE ST. PIERRE**—See Novelties and Specialties.

**EASTER BELLS**—A lovely pure shade of amber-white, flushed deeper. Throat flushed bright primrose-yellow with a few fine amaranth lines, but too deep down to be conspicuous. The chief effect of the flower is a soft mingling of the palest amber and primrose. Texture delicate; petals a lovely shape of lance-ovate. Flower well opened; three inches. Spike crowded. 40c each; \$4.00 dozen.

**ELDORADO**—Sea amber-yellow with a conspicuous blotch of carmine-red. Two and one-half inches. Good spike; striking. Each, 15c; \$1.50 doz.

\***EMILE AUBURN**—See Novelties and Specialties.

**EMPRESS OF INDIA**—Reddish-purple. Edges of petals penciled very dark violet. Two lower petals with white line on midrib. Anthers dark violet. Flower three and one-fourth inches in diameter. Very well placed. Good spike. Each, 5c; 50c dozen.



Golden King.



Europa.



From left to right, Charles Berthier, Papilio Rose, Marquis de Camp, Cremhilda, Winsome.

**ENCHANTRESS**—Cream-white, flaked pale rosy-carmine. Midrib on upper petals lighter; midrib on lower petals purple-carmine. Throat heavily sanded, purple-carmine mingled with deep amber. Orchid type, well opened, broad petals. Flower three and one-fourth inches in diameter. 20c each; \$2.00 dozen.

**\*ETENDARD**—Cream-white with very pale suffusion-rose on upper petal; a little in two side petals. Reverse of petals darker than inside. Conspicuous and handsome blotch of blood-red surrounded by canary. Anthers primrose-yellow. Pistils amber-white. 20c ea.; \$2.00 doz.

**EUGENE SCRIBE**—Tender rose, flecked carmine-red. Throat sanded and veined purple-carmine, mingled with deep amber. Midrib on all petals cream-white. Anthers amber. Two and one-half inches. Orchid type. Strong spike. Each, 10c; \$1.00 dozen.

**EUROPA**—Pure white. No markings. Anthers pale lilac. A very fine white Gladiolus of perfect form. Many blooms open at once. Compact form. Good spike. 15c each; \$1.50 dozen.

**EVELYN KIRTLAND**—See Novelties and Specialties.

**EVOLUTION**—Upper petals and throat pure white; suffused pale mauve-rose; sometimes flaked darker. Tips of petals darker. Midribs on all petals lined with pure white. Throat on lower petals primrose-yellow touched with lilac-rose. Reverse of petals darker than inside. Three to four inches. Very soft, good colors. Somewhat resembles Hibiscus. Each, 25c; \$2.50 dozen.

**EXCELSA**—Pale rose Eglantine, somewhat flaked purple-rose, and with small purple-rose blotch. Flowers three to four inches; not widely opened. Tall, fine spike. Each, 50c; \$5.00 dozen.

**FILLE DE FRANCE**—See Novelties and Specialties.

**FIRE KING**—Fiery-red, slightly flaked currant-red and with currant-red blotch. Three inches. One of the best reds and well named. 15c each; \$1.50 dozen.

**\*GENERAL MARINA**—Upper petals pale amaranth. Lower petals currant-red suffused with deep carmine-violet, especially on edges and in throat. One petal touched in throat with reddish-purple. Three inches. Very tall, fine spike; very rich and unusual colors. Each, 20c; \$2.00 dozen.

**GEORGE PAUL**—Crimson-red with bluish-lilac suffusion. Throat faintly reticulated sea amber-yellow. Three and one-half inches. Well opened; several flowers out at one time. Excellent. Each, 10c; \$1.00 dozen.

**GIANT PINK**—Deep rose Eglantine with a small blotch of amaranth. Three and one-fourth inches. Fine, large flower and very vigorous grower. Each, 5c; 50c dozen.

**\*GIL BLAS**—Pale rosy-pink, deeper on outer edge of petals. Large, striking blotch of old carmine-red, surrounded by primrose-yellow. Three and one-half inches. Tall spike. Striking. Each, 10c; \$1.00 dozen.

**GOLDEN KING**—Clear primrose-yellow with medium sized claret blotch. Three inches. Several flowers open at once. Tall spike; showy and good. Each, 10c; \$1.00 doz.

**GLORY OF HOLLAND**—Pure white with very faint flakes of light rose. Throat faintly sanded rose Nilsson. Anthers pale amber-white. Petals lance-ovate. Three and three fourths inches. Spike rather diffuse. An excellent white. Each, 5c; 50c dozen.

**GOVERNOR HANLY**—Currant-red; practically without markings except midrib on lower petals very dark, velvety. Three and one-fourth inches. Well opened; several flowers out at once. Fine spike. A splendid red. 15c each; \$1.50 dozen.

**GRETCHEN ZANG**—Pale rose Hermosa, washed bright rose. Throat deep lilac-rose with midribs a little more violet. The mingling of colors in this flower is unusual; the general effect fresh and very beautiful. Anthers pale rose. Flowers well opened to arch type. Three inches. Each, 30c; \$3.00 dozen.

**GRENADIER**—Fiery-red. Blotch currant-red, faintly suffused pale violet. Slightly reticulated, creamy-white. Three inches. Good. 10c each; \$1.00 dozen.

**HALLEY**—Described as light salmon-pink, but really rosy-scarlet. (Color chart 124.) Lower petal with primrose-yellow and carmine-purple lines forming small blotch. Anthers lilac. Three inches. Arch type. Good spike. Early. Although very inexpensive, this variety is simply indispensable and should be in every garden. Each, 5c; 50c dozen.

**HAZEL HARVEY**—Bright geranium, flaked crimson-red. Lower petals in throat rosy-white, very regularly lined rosy-magenta. Orchid type. Two and one-half inches. Fine, compact spike. Striking. 25c each; \$2.50 dozen.

**HERADA**—A new color in Glads. Light violet deepening to magenta at tips of petals. Midribs pale lilac, nearly white. Small blotch of deep magenta. Flower three inches. Showy and very good. 25c each; \$2.50 dozen.

**HOHENSTAUFFEN**—Pure white; reverse of upper petals reddish-lilac, giving the inside of petals a beautiful suffusion by reflection. Blotch on lower petals dull carmine-lake touched with amber. Anthers pale lilac. Flower four inches. Strikingly similar to Willy Wigman, but a little better. Petals acute, somewhat ruffled. 10c each; \$1.00 dozen.

**HOOSICK**—Deep cerise, flushed deeper. Midrib very decided; pale rose on upper petals. Small claret blotch surrounded by primrose-yellow. Two and one-half inches. 15c each; \$1.50 dozen.

**HYDE PARK**—Pure white, overlaid pale rose Hermosa. Tips of petals penciled pale cochineal-carmine. Throat primrose-yellow touched with old rose. Inexpensive and good. 10c each; \$1.00 dozen.

**\*IVORINE**—Upper petals pale yellowish-white with very pale suffusion, fleshy-white on tips, lower petals pale lemon-yellow. Amaranth lines at bottom of throat; a very faint sanding of amaranth deep in throat. Lower petals much smaller than upper. Anthers pale lilac. Three inches. Excellent spike. 20c each; \$2.00 dozen.



**INDEPENDENCE**—Tips of petals Lincoln-red; center pale crushed strawberry. Blotched cochineal-carmine. Fresh and beautiful colors. Anthers violet. Three inches. Orchid type. Excellent. 5c each; 50c dozen.

**KLONDIKE**—Creamy-white with raspberry-red blotch. Two and one-half inches. Spike dense; medium length. Entire spike frequently opens at one time, giving very pleasing effect. 5c each; 50c dozen.

**LACORDIARE**—Flowers fiery-vermilion, self color. Middle line on three lower petals pure white, touched with amber. Three lower petals sanded amaranth. Orchid type. Flowers medium size. Compact spike. 20c each; \$2.00 dozen.

**LADY HOWARD DE WALDEN**—Amber-white with dark claret blotch. A broad band of canary-yellow surrounding the blotch. Three inches. Large spike. Showy. 10c each; \$1.00 dozen.

**LILLY BLOTCH**—Madder-lake on outer edge and tips of petals. Rose Eglantine in center. Large showy blotch on three inner petals, blood-red, deepening to currant-red on midribs. Petals ruffled. Three and one-half inches. Good spike. Very showy. 25c each; \$2.50 dozen.

**LOVELINESS**—Amber-white with soft rosy suffusion from penciling in bottom of throat. Reverse of petals rosy-amaranth. Throat and middle bands deep amber-white. A stately and lovely flower. Compact spike; broad, well opened flowers. Broad petals. Good texture. Three inches. 25c each; \$2.50 dozen.

**LUTETIA**—Pale, bright rose, "Rose vif," lightly flaked darker. Midribs on all petals snow-white. Throat snow-white. Petals very long, elliptical. Anthers violet. Stigmas bright rose. 50c each.

**MADAME LEMOINIER**—Sky-colored white. Magenta blotched; touched with amber-white at edge. Two inches. Early. This variety usually has curved stems; is dainty and useful. 5c each; 50c dozen.

**MADAME DE VILMORIN**—See Novelties and Specialties.

**MAIZE**—Pure white, flushed very pale peach-blossom on upper petals. Reverse of petals darker. Blotch amaranth. Flowers first opening show some amber. Petals slightly ruffled. Three and three-fourths inches. Dainty coloring and very good. 25c each; \$2.50 dozen.

**MARQUIS DE CAMP**—Flowers white; edges of petals somewhat marbled with crimson-carmine. Lower petal in throat washed pale yellow. Petals ovate. Anthers lilac. Stigmas white or rosy. Bell type. Petals somewhat ruffled; somewhat reflexed. Beautiful spike. Three inches. 40c each; \$4.00 dozen.

**MAY**—Pale lilac-rose. Center nearly white. Slightly lined amaranth. Midrib deeper. Two and three-quarter inches. Long spike. 5c each; 50c dozen.

**MARY FENNEL**—A difficult color to describe. Pale violet-mauve, mingled with some rose. The effect is beautiful. Flowers well opened. Excellent spike. 25c each; \$2.50 dozen.

**MEADOWVALE**—Pure white with narrow lines of crimson-carmine on midrib of three lower petals. Petals reflex at edges. Neat and prim in appearance. Three and one-half inches. 5c each; 50c dozen.

**MEPHISTOPHELES**—Colors brilliant scarlet, sulphur and almost black, most peculiarly arranged; a deep border of scarlet around every petal; this band has a wire edge almost black; outside this is a band of sulphur. Throat on lower petals very deep and velvety. Type between bell and orchid. Three inches. Very striking. 10c each; \$1.00 dozen.

**MRS. A. E. KUNDER**—Pure white with very soft suffusion rose Eglantine. Throat faintly lined and sanded lilac-rose, surrounded by a little amber-white. Somewhat ruffled. Three inches. Excellent spike and strong plant. 15c each; \$1.50 dozen.

**MRS. FRANCIS KING**—Lincoln-red, throat with small blotches raspberry-red surrounded by a very little sea amber-yellow. Four inches. Inexpensive but a splendid variety. 5c each; 50c dozen.

**MRS. FRANK PENDLETON**—Pale rose Eglantine with conspicuous claret blotch. Ox blood-red midrib shading into geranium at edges. Four and one half in. Excellent spike. A remarkably showy and attractive variety. 15c ea.; \$1.50 doz.

**MRS. G. W. MOULTON**—Center of flower pale amaranth; outer part darker. Midribs pale purple, excepting throat, where three lower ones are claret. Throat sea amber-yellow, closely overlaid deep amaranth. Three and one-fourth inches. Rich and beautiful colors, but not bold. Each, 20c; \$2.00 dozen.

**MRS. JAMES H. LANCASHIRE**—Rosy-pink (Rose Eglantine color chart No. 118-1). Some flowers without any blotch at all. Others on same stalk have small blotch of reddish-purple, shading into primrose-yellow. Three and one-half inches. Splendid. 25c each; \$2.50 dozen.

**MRS. MALCOLM MACKAY**—Three upper petals Oriental-red. Throat very pale flesh-pink. Blotch snow-white. Tip Oriental-red. This very strong and effective contrast of red and white is very noticeable in the buds, which are beautiful. Petals lanceolate. Two and one-half inches. 15c each; \$1.50 dozen.

**MRS. MERTON L. GAGE**—Beautiful pure white, throat barely touched violet-rose. Anthers ageratum-blue. Three and one-fourth inches. Somewhat tubular. Several flowers open at once. Beautiful. 25c each; \$2.50 dozen.

**MYRTLE**—Pale mauve-rose, deepening on outer edge of petals. Flaked and penciled dark mauve-rose. Throat almost pure white. Three inches. Long spike. A delicately beautiful variety. 20c each; \$2.00 dozen.

**MRS. W. E. FRYER**—See Novelties and Specialties.

**NERON**—Crimson-red. Outside of petals carmine-purple. Upper part of throat pale reddish-violet (solferino). Lower throat deep amaranth. No blotch, but touch of carmine-white on midrib of lower petals. Two and one-half inches. Tall, fine spike. 10c each; \$1.00 dozen.

**NEWPORT**—Reddish old rose. Midribs on all petals lilac-white. Throat of three inner petals sulphury-white. Color very pure and fresh. Flower triangular. Three and one-fourth inches. Tall spike. 40c each; \$4.00 dozen.

**NIAGARA**—Beautiful creamy-yellow. Throat primrose-yellow; faintly touched with lilac-rose lines; faintly suffused lilac-rose by reflection from outer walls of petals. Sometimes flaked bright rose on tips of petals. Anthers bluish-lilac; pistils rosy-pink. Three and one-half inches. Good spike. Splendid. 10c each; \$1.00 dozen.

**PACHA**—Tomato-red; without blotch. Midribs primrose-yellow with some reticulation in throat of same color. Flower well opened. Three inches. 10c each; \$1.00 dozen.

**PANAMA**—Large, wax-like flowers, self-colored, clear pale Hermosa rose, very fresh and delicate. Four and three-quarter inches. Flowers well opened; well placed. Large spike. A splendid variety. 10c each.

**PAPILLO ROSE**—Pale lilac-rose; washed purple-rose. Large conspicuous blotch of primrose-yellow with deep purple-rose in center. Widely opened. Four inches. Excellent spike. This variety excites wonder and admiration wherever shown. Striking but not bold. 25c each; \$2.50 dozen.

**PEACIBLOW**—Rosy-white suffused bright rose and penciled deep mauve-rose. Midrib on upper petals paler. Throat slightly striped amaranth. Petals on outer walls heavily penciled and flaked salmon-rose and aniline-red. Rose bud type. Two and one-half inches. 15c each; \$1.50 dozen.

**PRINCE OF INDIA**—See Novelties and Specialties.



Princeps.



Primulinus Hybrids.

**PEACE**—Pure white. Pencilled on outside with mauve, giving faint flush to the entire flower. Throat pencilled pure mauve. Three inches. Anthers violet-lilac. Very strong plant and splendid spike. 10c each; \$1.00 dozen.

**PINK BEAUTY**—Pale carmine-lake. Three lower petals forming rather large geranium blotch. Orchid type. Two and one-half inches. Good spike. Very early. 5c each; 50c dozen.

**PINK PERFECTION**—Rose-Hermosa, softly suffused salmon-rose. Lightly pencilled salmon-rose at tips of petals. Deeper on reverse of petals, giving an effect both soft and bright. Midrib on each petal pure white. Throat very pale rose-Hermosa, with delicate frosted effect. Throat on lower petals feathered aniline and violet. Four and one-quarter inches. Flower well opened. Stems usually curving, making a very graceful effect. 20c each; \$2.00 dozen.

**PRINCEPS**—Deep carmine with conspicuous white blotch. Four inches. Very showy. One of the finest reds in existence. Stands up remarkably well in heat and drouth. The Amaryllis-flowered variety. 6c each; 50c dozen.

**PRIMULINUS HYBRIDS**—A new race of remarkably dainty and beautiful Glads. Perhaps orange and gold colors predominate, but they combine every shade in the rainbow. Usually the flowers are hooded, somewhat smaller than the ordinary Glads., and usually the stems are gracefully curved. They are quite early, earlier than most varieties of Glads. Our assortment contains varieties in lilac-rose, cardinal, rose, apricot, salmon-pink, sulphur-white, flesh color, shrimp-pink, rouge-cerise, cochineal-red, buttercup-yellow, maize-yellow, amber-white, carmine-lake, violet, lilac and many others. 5c each; 50c doz.

**PRIMULINUS KUNDEI No. 24**—Amber-white; throat primrose-yellow with small amaranth lines. Well ruffled; trifle hooded. Three and one-half inches. Each 30c, \$3.00 dozen.

We secured from Lemoine, the great French Hybridizer, three named varieties of Primulinus, which he has crossed with some of the finest yellow Lemoine Glads. Florists who want named varieties instead of mixtures will find these interesting.

**PRIMULINUS CONCOLOR**—Large flowers; pale Naples-yellow; also segments sulphur-yellow. Petals broad and rounding. Excellent. 20c each; \$2.00 dozen.

**PRIMULINUS MAJOR**—Flowers chrome-yellow, slightly feathered maroon on the lower segments. 15c each; \$1.50 dozen.

**SALMONEUS**—Salmon and buff-yellow. Inside pure yellow with small purplish spots. 15c each; \$1.50 dozen.

**REDA MARCEL**—Dark cherry-red, becoming dark ox blood-red at margin of petals. No blotch. Flowers of unusual form, Amaryllis shape, velvety and rich. Very fine variety. Three and one-half inches. 20c each; \$2.00 dozen.

**RED EMPEROR**—See Novelties and Specialties.

**REINE BLANCHE**—Snow-white. Outside of petals flaked bright rose. Throat tinted amber-white. Medium size. Long spike. 5c each; 50c dozen.

**ROCHESTER WHITE**—Very pure white with delicate rose suffusion on tips of petals. Anthers white; no blotch; flower of beautiful form, well placed. Three inches. One of the finest whites. 25c each; \$2.50 dozen.

**KUNDER'S 1913 ROSE**—Purple-rose, a little flaked with car. magenta. No blotch, but midrib on two lower petals pure white, giving a striking and very pleasing appearance. Two and three-fourths inches. Good spike. 25c each; \$2.50 doz.

**ROSELLA**—Pure deep mauve. Throat creamy-white with some claret. Three and three-fourths inches. A new and pleasing shade, which is well liked wherever shown. 10c each; \$1.00 dozen.

**ROUGE TORCH**—Pure white with very pale rose suffusion by reflection on upper petals. Lower petals with deep carmine-rouge torch in center. Flower well opened. Three and one-fourth inches. Anthers practically white. Showy and attractive. 25c each; \$2.50 dozen.

**RUFFLED GLORY**—Cream-white, softly suffused pale flesh over entire surface, with very pale rose reflections. Lower petals suffused pale flesh in throat, mingled with Naples-yellow. Throat streaked amaranth. Upper petal large and very broad, lower petals obovate. Strongly and beautifully ruffled. Four inches. 10c each; \$1.00 dozen.

**SCARSDALE**—Soft, clear carmine-rose, with lighter middle line in each petal. Three lower petals sanded dark amaranth on white. Flower well opened. 10c each; \$1.00 dozen.

**SCHWABEN**—Amber-white. Throat touched primrose-yellow and lined a little with mauve. Anthers amber-white. The effect of the flower is very pure and fresh. Colors unusual and very attractive. Arch bell type. Three in. 35c each; \$3.50 doz.

**\*SIBERIE**—See Novelties and Specialties.

**\*SOLFATARE**—Good spike with many large flowers; very soft creamy-white. Suffused and striped with lilac-red. Lower petals strongly suffused sulphur-yellow with a few amaranth-red marks; very beautiful. 20c each; \$2.00 dozen.

**SPRING SONG**—Pale Naples-yellow, throat tinted pink; lower petals pencilled pink. A very dainty, delicate variety of graceful form. Excellent for massing and cutting. 15c each; \$1.50 dozen.

**SULPHUR KING**—Buttercup-yellow, practically without markings. Throat lightly sanded amaranth at the bottom. Petals lanceolate. Flower 2½ to 3 in. 15c each; \$1.50 dozen.

**THERESE DE VILMORIN**—Cream-white, with midrib pure white. Deep in throat a little lined and sanded amaranth, and with amaranth sutures at bottom of throat. Reverse of petals amaranth at bottom. Two and one-half inches. Dainty and attractive. 30c each; \$3.00 dozen.

**TRIOMPHE DE PARIS**—Cream-white, slightly suffused lilac from reverse of petals. Throat primrose-yellow. Three lower petals banded on midrib with amaranth. Flowers forming circle around spike; numerous and nearly all open at one time. 30c each; \$3.00 dozen.

**VENICE**—Rose-Eglantine. Throat with alternate lines primrose-yellow and purple-rose. Petals reflexed. Unusual colors. 20c each; \$2.00 dozen.

**VIVID**—Deep carmine-violet, practically without markings. Flowers two and one-half inches; not widely opened. Well named. 15c each; \$1.50 dozen.

**WAR**—Deep scarlet; paler in throat, flaked blood red with lighter middle line. Arch type. Three and one-half inches. One of the very best reds. 15c each; \$1.50 dozen.

**WHITE EXCELSIOR**—Lily type. Cream-white, lightened amber-white in throat. Anthers lined old rose. Two inches. Delicate and attractive. 15c each; \$1.50 dozen.

**WAMBA**—Pale rose-Eglantine; deeper at tips of petals. Throat on three lower petals rose-Neyron; very delicately blended. All petals curiously and beautifully rolled, giving a very unusual and beautiful effect. 20c each; \$2.00 dozen.

**WHITE CLOUD**—Rather small flower. Compact narrow spike. Color rosy-white, softly tinted Hermosa-rose on extremities of petals. Throat faintly haloed amber-white, giving a softly luminous effect to the whole. 10c each; \$1.00 dozen.

**WHITE GLORY**—See Novelties and Specialties.

**WID ROSE**—Pale lilac deepening to bright rose at tips of petals. Throat lightly sanded amaranth; midrib on all petals pure white. Orchid type. Four inches. 10c each; \$1.00 dozen.

**WILLY WIGMAN**—Petals large and broad; pure white. The reverse of upper petals reddish-lilac, the interior having a beautiful suffusion by reflection. Rather large blotch upon lower petals, dull carmine-lake with a little amber. Flower four in. Good substance. This is one of our most satisfactory varieties, standing heat and drouth wonderfully well. 10c ea., \$1.00 doz.

**YOUELL'S FAVORITE (Kunder)** (Introducer's description)—Ruffled. After inspecting a large field of very beautiful ruffled seedlings, I chose this as one of the best, and Mr. Kunder has kindly given it my name. It is a giant among the ruffled sorts; the flowers are very large; on a strong spike; color striking rosy lavender-pink, beautifully marked; highly recommended. Each, 25c; dozen, \$2.50.

## MIXTURES

**WING'S SUPERB**—This mixture comes in great big bulbs; the kind that produces sturdy plants. The range of colors is excellent and many of the blooms are ruffled. It is the very best that we know of. Dozen, \$1.00; 25, \$1.75; 100, \$6.00.

**WING'S RESPLENDENT**—Contains a wide range of brilliant colors and includes many 10 and 15-cent bulbs. The colors will harmonize either for garden planting or for cut flowers. Doz., 75c; 25, \$1.25; 100, \$5.00.

**WING'S EXQUISITE**—Contains all soft colors with beautifully marked throats. These colors will all harmonize. Dozen, 45c; 25, 75c; 100, \$3.00.

**TRIAL GROUNDS MIXTURE**—Contains varieties grown in our trial grounds, which were either too similar to other sorts which we were listing, or had some other objection. These are all good varieties. Some of them would cost many times what we are changing if purchased outside of a mixture. Dozen, 40c; 25, 70c; 100, \$2.75.

**WING'S CHOICE**—A very good mixture of standard varieties and unnamed seedlings, with a wide range of colors. The price is moderate enough so that any one can have a good-sized planting. Dozen, 25c; 25, 40c; 100, \$1.50.

## SPECIAL PRICES ON LARGE NUMBERS OF ANY VARIETY GLADIOLI COLLECTIONS

(For descriptions, see Alphabetical List.)

COLLECTION A—	Regular Price
America	
Augusta	
Baron Hulot	
Empress of India	
Giant Pink	
Glory of Holland	
Halley	
Klondike	
Madam Lemoine	
Meadowvale	
Mrs. Francis King	
Primulinus	
Total	60c

We will give one bulb of each variety for 50c.

COLLECTION B—	Regular Price
Baron Hulot	5c
Canary Bird	10c
George Paul	10c
Dawn	15c
Golden King	10c
Mrs. Frank Pendleton	15c
Niagara	10c
Peace	15c
Peachblow	10c
Willy Wigman	10c
Wild Rose	10c
Giant Pink	5c
Total	\$1.25

We will give one bulb of each for \$1.00.

COLLECTION C—	Regular Price
Baron Hulot	5c
Bleriot	15c
Europa	15c
Halley	5c
Loveliness	25c
Mrs. Frank Pendleton	15c
Niagara	10c
Panama	10c
Papilio Rose	25c
Pink Perfection	20c
Primulinus Hybrid	5c
Red Amaryllis	10c
Total	\$1.70

We will give one bulb of each for \$1.30.

## MEEHAN'S MALLOW MARVELS

They are of herbaceous character, dying down in the fall. The flowers resemble the Hollyhock, but are of much heavier texture, usually 8 to 10 in. in diameter, in color soft shell-pink, fiery-crimson, white and rich blood-red. We have grown these plants on Woodland Farm for years, and they have always been satisfactory.

### TWO-YEAR-OLD ROOTS

Crimson	75c each; \$6.00 per 10
Red	75c each; 6.00 per 10
Pink	50c each; 4.00 per 10
White	50c each; 4.00 per 10

Shipped direct from nursery in Pennsylvania at purchaser's expense. Write for prices on large quantities.

### THREE-YEAR-OLD ROOTS

Crimson	\$1.00 each; \$8.00 per 10
Red	1.00 each; 8.00 per 10
Pink	.75 each; 6.00 per 10
White	.75 each; 6.00 per 10



# DAHLIAS

Dahlias will do well on any soil, but it should be thoroughly cultivated. Any form of manure is beneficial, either stable, green crop plowed under, bone meal, or complete fertilizer such as is used for potatoes. Roots may be planted after danger of frost is over. Plant bulbs flat, six inches deep. Pompons should be planted two to two and a half feet apart; the other three to four feet apart. Grow to but one or two stalks. Give thorough cultivation, deep at first and continue weekly until the plants begin to flower. Soil should be stirred after each rain to prevent a crust from forming.

Dahlia prices are prepaid.

## CACTUS DAHLIAS

In Cactus Dahlias the flowers have long twisted petals terminating in points. Some have petals nearly straight, others gracefully incurved. In the hybrid Cactus type, the flowers are broad and flat, of great depth, individual petals or florets being long and broad, moderately quilled, terminating in points, arranged in exact regularity.

**ADVANCE**—Immense flowers. Straight petaled type. Brightest fiery-scarlet, base tinged yellow. Each, 25c.

**ALIGHT**—Gigantic flowers, beautiful orange-scarlet in color, of extra good form. Petals long, very narrow, moderately incurved. Very free flowering. Each, 25c.

**ALPENROSE**—Flower of fine form, with twisted petals, aniline-red with golden suffusion. Extremely vigorous and free flowering. Each, 25c.

**ARTILLEUR**—New. Very large, extremely graceful flowers, rich crimson in color. Plant of medium height; vigorous grower. Each, \$1.50.

**AURORA**—Finely formed flower with incurved petals. Egg-yellow shaded with rose, passing to sulphur-yellow at the center. Distinct and beautiful. Each, 20c.

**BRIGADIER**—Large, full flowers of extra fine form. Petals long and beautifully incurved. Bright crimson, base and outer petals scarlet-crimson. Each, 50c.

**CALIFE**—Flower very large, usually seven inches in diameter. Color, vermilion-red. Plant of fine habit, four and one-half feet in height, and very free flowering. Each, 75c.

**CARGO**—Flower very thick, perfect in form, with broad petals rolled at the points. Hortensia rose, deeply shaded sulphur-yellow. Plants four and one-half feet in height. Each, 35c.

**CORNEMUSE**—Flowers light and graceful. Salmon old rose, passing to mauve at tips of petals; center creamy-white. Height three feet. Each, 35c.

**COUNTRESS OF LONSDALE**—This is probably the most popular Cactus Dahlia in the United States. It is very reliable, can always be depended upon to bloom. The flowers are always true to type. It is free-flowering and has a long blooming season. The flowers are of the hybrid Cactus type, very full and thick, in color, coral with golden suffusion, tips of petals overlaid violet. The plants are of medium height. Each, 15c.

**COUNTRESS OF MALMESBURY**—Full flowers with incurved petals. Delicate peach-pink, blending to white at center. Each, 25c.

**CREPUSCLE**—Immense flowers of beautiful form, with straight petals; pale orange-yellow at center deepening to beautiful deep amber-buff at outer petals. The plant is extremely vigorous, very tall and free flowering. A fine exhibition variety. Each, 25c.

**CUIRASSIER**—Flowers of beautiful form, with incurved petals. Color, rose Neyron, deeper in center. Height three and one-half feet. Each, \$1.00.

**DAINTY**—An exquisite flower with petals straight, very long and beautifully quilled, making a perfect star shape. The color is lemon-yellow, daintily tipped bright rose. The plants are strong, upright and vigorous, with exceptionally long, stiff stems. Each, 25c.

**DEBUTANTE**—Finely formed flower, having narrow pointed, incurved petals. In color pale pink at base, passing to white at tips. Each, 25c.

**DOROTHY**—Flowers of good size, depth and well formed. Petals moderately incurved. Beautiful silver-pink, effectively brightened by the showing of the tiny white tips on the reverse of petals. Each, 35c.

**DREADNAUGHT**—Hybrid Cactus type. Glowing crimson, deepening to maroon at center. Each, 15c.

**DUCHESS OF MARLBORO**—Beautiful solferino with a golden suffusion from the base of petals. Plants vigorous, extremely free flowering. Each, 50c.

**EARL OF PEMBROKE**—Large flowers of hybrid Cactus type. Color bright plum. Each, 15c.

**EDWARD DRUREY**—One of the best variables, some of the flowers being pale yellow tipped white, others clear yellow. Moderately incurved. Each, 25c.

**E. F. HAWES**—Very large flower, of perfect form and remarkable coloring, Persian lilac-rose. Plants five feet in height. Each, 50c.

**ETENDARD DE LYON**—Very large flowers of hybrid Cactus type, with petals very broad and curled, usually six inches in diameter. The coloring is difficult to describe. The introducer calls it bright carmine-rose. It might also be called a brilliant royal-purple. The plant is four and a half feet tall, of splendid habit. Very vigorous and free flowering. Each, 75c.

**ETRURIA**—An exceptionally free flowering, early blooming variety. Flowers of medium size, in color ochre-



red passing to old carmine-red at points. One of the best "Autumn leaf" varieties. Each, 35c.

**FILLE D'ALSACE**—Elegant flowers with twisted petals. Solferino mauve-rose passing to white at the center. Height four and one-half feet. Each, 50c.

**FLAME**—Petals straight, very long and tightly quilled. Beautiful orange-scarlet. Each, 25c.

**FLAMINGO**—Hybrid Cactus type, very free flowering. Beautiful clear brilliant vermilion. Each, 15c.

**FLORADORA**—Flowers of medium size, petals moderately incurved, of beautiful shape, produced with remarkable profusion. Color velvety purple-garnet, brighter at tips. Each, 20c.

**FRED COBBOLD**—Flowers large, finely formed, moderately incurved. Color ox-blood-red. Very free flowering. One of the best. Each, 25c.

**HENRI LEMOINE**—Flowers of geranium-red shaded with purple-crimson. Height four and a half feet. Each, 50c.

**H. F. ROBINSON**—One of the best yellow Dahlias in existence. Petals narrow, straight and tightly quilled. Clear golden-yellow. Each, 20c.

**IANTHE**—Very large flower of hybrid Cactus type. Color buff edged salmon-rose. Each, 20c.

**INDOMITABLE**—Petals very long, narrow and perfectly curved. Beautiful mauve-pink lighter at tips of petals. Fine exhibition variety. Each, 35c.

**IVERNIA**—Color apricot-yellow shaded rose. Incurved flowers carried well above the foliage on long wiry stems. Each, 25c.

**J. H. JACKSON**—An exceptionally satisfactory, all around Dahlia. It is remarkably free flowering, fine for massing, and also for cut flowers. The flowers are of the straight petaled type, of large size. Purple garnet-red, rich and velvety. Height 3½ feet. Each, 20c.

**KRIEMHILDE**—Hybrid Cactus type. Flowers of medium size. Color brilliant rose, shading to white at the center. Very late flowering. Each, 15c.

**LIBELLE**—Flowers of the straight petaled type. Clear, deep rose-purple. Very distinct. Each, 10c.

**MADAME HENRI CAYEAUX**—Flowers of largest size, with long narrow florets, gracefully incurved. Beautiful rich pink, daintily tipped white. One of the best exhibition varieties. Each, 35c.

**MARGUERITE BOUCHON**—One of the most beautiful Cactus Dahlias. Fine exhibition variety. The flowers are of the straight petaled type, perfect in form. Brilliant rose with white center, distinctly defined white tips. Ea., 75c.



**MARY SERVICE**—A very free flowering variety with medium flowers having straight narrow folded petals. The base of petals is pale Roman ochre passing to lilac-rose at tips of petals. Each, 15c.

**MASTER CARL**—Very large flowers of hybrid Cactus type. Beautiful bright amber. Very distinct. Each, 25c.

**MISS A. F. PERKINS**—Finely formed, straight petaled flowers of silvery-yellow, tipped pure white. Each, 20c.

**MRS. DE LUCA**—Straight petaled flowers of clear golden-yellow, tinted coppery-rose on outer petals. Flowers very large and full and deep. Plant tall, very vigorous, free flowering. Very early. Each, 20c.

**MRS. GEO. CASTLETON**—Petals straight, remarkably narrow and tightly quilled. Velvety blackish-maroon, shaded purple. Each, 35c.

**MRS. GEO. STEVENSON**—Large flowers with very long, narrow straight petals. Glistening yellow. Each, 20c.

**MRS. HENRY WIRTH**—Medium sized flowers produced in great profusion, formed with the utmost regularity. Petals broad and pointed. Velvety strawberry-red, deeper at tips. Each, 25c.

**MRS. MACMILLAN**—Incurved flowers of great depth. White in center deepening to rose at tips. Each, 25c.

**NERTHUS**—Large flowers of distinct and wonderful coloring. Dark old rose brightened with yellow at base of petals, points tinted with violet. Height four and one-half feet. Each, 35c.

**PRINCE OF ORANGE**—Very showy variety, with straight petaled flowers of rich old gold, shading to bright yellow at center. Ea., 20c.

**PRINCE OF YELLOWS**—Flowers medium size, of perfect form, with straight petals. Soft primrose-yellow. Each, 15c.

**REINE CAYEAUX**—Flowers of medium size, of hybrid Cactus type, rich velvety geranium-lake, with deeper shading. Plants of good habit, very free flowering. Each, 25c.

**ROSA STARR**—A fine novelty, very distinct in structure. In addition to the regular long quilled petals, it has very fine needle-like inner petals. Lilac-pink. Each, 50c.

**RUBY GRINSTED**—Incurved flowers with centers of soft yellow, gradually suffused until it becomes rich rose-fawn, outer petals very light salmon-rose. Each, 25c.

**SATISFACTION**—Graceful flowers of the incurved type. Florets very long and equally narrow throughout. Clear bright rose, approaching white in the center. Each, 35c.

**SPANISH PRINCE**—Large flowers, incurved, very thick and full, of perfect form. Peach blossom-rose, passing to white at the base of the petals. Height nearly four feet. Each, 50c.

**STERN**—One of the most satisfactory yellow varieties. Large flowers, petals straight, long and pointed. Bright primrose-yellow. Each, 15c.

**SWEETBRIAR**—Flowers incurved, graceful and elegant. Color mauve, deeper at center and tips. Plant nearly five feet in height. Very free. Each, 50c.

**THE KING**—Gigantic flowers with very long, twisted, incurved petals. Very deep velvety carmine-red with blackish reflections. A fine exhibition variety. Each, 35c.

**THOMAS PARKINS**—Flowers of the best form, very deep narrow and incurved. Uniform light terra cotta. Each, 25c.

**ULYSSE**—Flower of perfect shape. Petals very broad, rolled at the points. Rose Nilsson brightened by yellow around the center. Plant almost four feet in height. Each, 75c.

**VILLE DE LYON**—Large flowers; petals broad and pointed. Mauve-rose with white center. Height four and one-half feet. Each, 50c.

**VIOLONCELLE**—Petals broad, rolled at the points; color rose Neyron brightened with salmon, points slightly tinted lilac. Height four feet. Each, \$1.00.

**WHITE SWAN**—Pure white, straight petaled flowers borne on long graceful stems. Each, 20c.

**WINNIE BROWN**—Flower fine and graceful. Color rose Hermosa with deeper tips; center Pyrethrum-yellow. Height four and one-half feet. Each, 80c.

**WINSOME**—Flowers of creamy-white. Each, 20c.

**WODAN**—Large broad flowers frequently seven inches in diameter; hybrid Cactus type. The coloring is beautiful bright flesh, passing to yellow at the points and the center. Height four feet. Each, 30c.

**YVONNE CAYEAUX**—Beautiful flowers of perfect star shape; straight petals arranged with exact regularity. Snow-white. Each, 35c.

## DECORATIVE DAHLIAS

Decorative Dahlias are exceptionally strong, vigorous growers, with very heavy foliage, and are extremely free flowering. The flowers are large, flat, full to the center. The petals are long, broad, flat, nearly straight and somewhat irregularly arranged.

**AMERICAN BEAUTY**—The very full flowers are of gigantic size, with petals over one inch in width, in color rich carmine-red overlaid violet. Each, 25c.

**ANNELLIE DUFOUR**—Cochineal-red with rosy-white tips. Height almost four feet. Each, 50c.

**BLUE OBAN**—Medium flowers of very pretty form. Slaty violet-rose sanded rosy-magenta at base of petals. The ground color of this flower is the nearest approach to blue yet obtained in Dahlias. Each, 20c.

**DELICE**—Extremely beautiful flowers of very fresh pure coloring, which may be described as rose Neyron brightened by white, with just a suspicion of purple-rose here and there over the petals, and with a touch of gold at the base of each petal. Each, 25c.

**D. M. MOORE**—Immense flowers like crushed satin, petals one and one-half inches across. Flowers always full to the center, perfect in form; petals arranged with the utmost regularity. Color deep rich maroon. Very vigorous and free flowering, producing good flowers even in hot, dry seasons. Each, 25c.

petals, very

**FIREBURST**—A beautiful flower of most distinct and artistic coloring; old blood-red becoming lighter at tips of outer petals. Petals medium size, flowers very thick and full to the center. Each, 50c.

**JACK ROSE**—Plants of medium height; flowers of medium size produced in such profusion as to cover the plant. A splendid variety for decorative use in the garden. Flowers borne over a long season. Bright carmine-red overlaid violet, resembling the color of the rose of the same name. Each, 20c.

**JEANNE CHARMET**—Flowers of beautiful form and coloring, very large, full and fluffy. Petals very long and broad, some of them divided at tips into two or three pointed divisions. Coloring a mingling of violet-rose and white, with distinct wire edge of violet-rose on each petal, and slight touch of gold at base of center petals. Ea., 25c.

**J. K. ALEXANDER**—Immense flowers of clear rich violet-purple, shading to deep purple, borne on long wiry stems. Plants vigorous and very free flowering. Each, \$1.00.

**LA FRANCE**—Large full flowers of delicate mauve-rose, some of the petals edged with a deeper color, some with white. Each, 25c.

**LE GRAND MANITOU**—One of the best fancy decoratives. Flowers of immense size and perfect form; pure white striped and blotched deep violet-purple; occasionally one of the flowers is solid purple. Each, 35c.

**MME. MARZ**—Large, perfectly formed flowers of pure white. Each, 50c.

**MME. VAN DEN DAEL**—Large, finely formed flowers of mauve-rose with center of milk-white. Each, 20c.

**Mlle. JEANNE CHANTRE**—Graceful flowers with broad, loosely arranged petals. Beautiful mauve, deeper at points; center amber-white. Each, 35c.

**MANITOU**—Immense flowers of amber-bronze. Each, 25c.

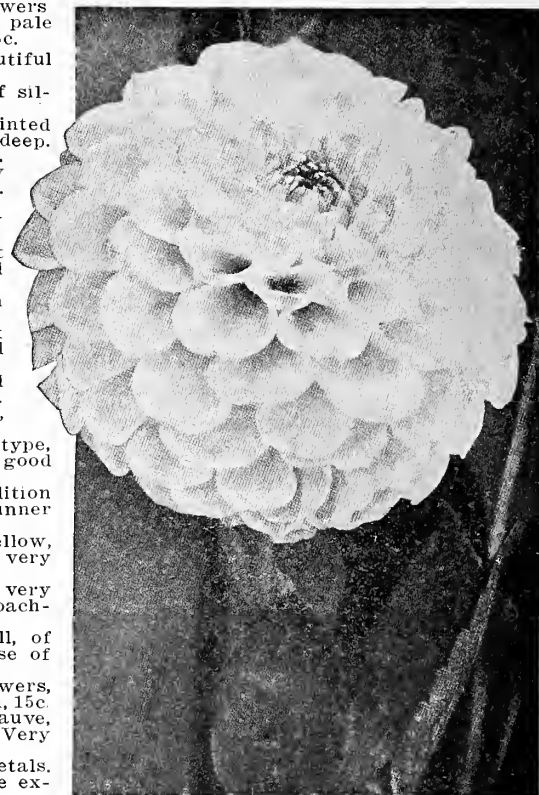
**MINNIE BURGLE**—Flowers very large, of perfect form; petals extremely long and rather narrow, sharply pointed, arranged with utmost regularity. Flowers always full to the center, never showing green at center. Deep blood-red, very pure and clear. Each, \$1.00.

**MINOS**—Very large flowers of dark rich coloring, purple-brown with blackish reflections at base of petal. Ea., 20c.

**MISS MINNIE McCULLOUGH**—Very popular cut flower variety, especially valuable for use under artificial light. Soft yellow overlaid bronze. Each, 20c.

**MRS. J. GARDNER CASSETT**—Large, elegantly formed flowers, petals folded through the center. Deep violet-rose, paler at base of petals. Each, 25c.

**NAUSICAÄ**—Flowers very deep, composed of numerous petals, three-cleft at edges, giving a soft and graceful effect to the flowers. Sulphur-yellow with golden sheen; reverse of petals sulphur-white. Each, 50c.



W. W. Rawson.



**OBAN**—Medium flowers of very pretty form. Color rosy-lavender heavily overlaid silver-fawn. Each, 10c.

**PAPA CHARMET**—Deep velvety blood-red, blackish at tips. General color effect very rich. Each, 35c.

**PERLE D'LYON**—One of the best white Dahlias for cut flowers; good sized flowers with petals split at the tips, pure white in color. Each, 25c.

**PERLE D'OR**—This is another good pure white. Decorative. It has the petals split at the points the same as Perle d'Lyons, but it is a more massive flower. Each, 20c.

**PROF. MANSFIELD**—Coloring very unique, a rich shade of yellow tipped and striped white, overlaid deep rose. Each, 15c.

**REGGIE**—Large flowers of brilliant cherry-red. Each, 20c.

**ROYAL PURPLE**—Broad, full flowers of deep rich purple, with golden center. Each, 50c.

**SOUVENIR DE GUSTAVE DOAZON**—The largest Dahlia grown. The flowers are very full, in color bright glistening cherry-red. The plant is a remarkably sturdy grower and very tall. Each, 20c.

**TELEMAQUE**—A new French Dahlia, extremely free flowering, of very fresh coloring. Lilac-white, lined and spotted with purplish-red. Ea., 35c.

**WILHELM MILLER**—Flowers loose and fluffy with broad flat petals. Carmine-red passing to Tyrian rose at tips. Each, 10c.

**W. W. RAWSON**—Flowers seven to nine inches in diameter, center petals quilled, outer ones more open and flat. Coloring distinct and beautiful, pure white overlaid clear amethyst. Each, 35c.

**YELLOW COLOSSE**—Flower very large and full, perfectly formed, with very broad cup-shaped petals. Deep primrose-yellow. Each, 25c.

## PEONY-FLOWERED DAHLIAS

The Peony-flowered Dahlia is one of the newest types, very artistic and beautiful, with large semi-double flowers composed of broad petals loosely and very irregularly arranged, showing a rich golden center.

**ADMIRATION**—Flowers very large and full to the center, each petal being semi-cupped and pointed. The coloring is unique. The base of each petal is chrome-yellow sanded with blood-red, the middle of petal geranium, shading at tips into carmine-violet washed onto a lighter ground. Ea., 25c.

**ANTOINE RIVOIRE**—Flowers very large, very full, with numerous petals fairly irregular in arrangement. Color cochineal-carmine showing a glimpse of golden-yellow at the base of each petal; center golden-yellow. Each, 25c.



"Queen Emma."

**BARON G. DE GRANCY**—

Large flowers, pure waxen white; plant almost five feet in height. Each, 25c.

**BERTHA VON SUTTNER**—A variety of rare and patrician loveliness. Flowers large, of irregular formation, with twisted petals. The coloring is unique and hard to describe; we would call it delicate blush-rose with a salmon tint. Each, 35c.

**CAECILIA**—Very large irregular flowers of pale sulphur. Each, 50c.

**DR. PEARY**—Large flowers, petals very long and very much twisted and curled. Mahogany brightened at tips with blood-red. Each, 50c.

**GEISHA**—Large flowers of the same formation as those of Dr. Peary. Coloring very brilliant, a combination of brilliant scarlet and gold, with a ring of rich clear golden-yellow at center. Each, 50c.

**GLORY OF BAARN**—Very large flowers, very long petals, inner ones arranged in a whorl. Coloring very fresh and lively, pale violet-rose slightly lightened by white; beautiful golden center. Each, 25c.

**HAMPTON COURT**—Large flowers of bright mauve-pink. Each, 25c.

**KING LEOPOLD**—Petals very broad; coloring lemon-yellow, very pale at tips. Very free flowering. Each, 25c.

**LA RIANTE**—Flower of original form with long twisted petals. Beautiful violet-rose lighter at base of petals. Ea., 25c.

**MRS. JACQUES FUTRELL**—Flowers of medium size, lemon-yellow splashed blood-red. Each, 25c.

**OREGON BEAUTY**—Flowers very large, very deep and full. Petals one and one-fourth inches wide, rounded at tips, of beautiful texture. Deep velvety cherry-red, passing to carmine-red at outer edge of petals, with a glistening sheen in the sunlight. Each, 50c.

**PAUL KRUGER**—Coloring very effective; deep crimson washed with white. Each, 25c.

**QUEEN EMMA**—Flowers large and full with very broad petals. The coloring is a beautiful mingling of pale violet-rose and pale gold, the latter color being more pronounced on the inner petals; on the outer petals it appears as just a glistening sheen. Reverse of petals deeper violet-rose, center yellow. Each, 25c.

**QUEEN WILHELMINA**—Large fluffy flowers of pure white with the inner petals arranged in a whorl around the golden-yellow center. Each, 25c.

**SOUTH POLE**—Immense and beautifully formed flowers with very long twisted petals. Color superb creamy-white. Ea., 75c.

**SUNRISE**—Light carmine-rose sanded and flamed deeper, suffused gold around the large center, which is yolk-yellow in color, with prominent stamens of deep Indian-yellow. Each, 25c.



Glory of Baarn.

## SHOW AND FANCY DAHLIAS

The Show Dahlias have flowers of regular form, almost globular, with petals regularly arranged, more or less tightly quilled.

**A. D. LIVONI**—An old standard variety. It is very decorative in the garden, the plant of sturdy growth, covered all summer long with the beautiful, perfectly formed flowers, ball-shaped with tightly quilled petals arranged with the utmost regularity. The color is one of the most beautiful found in Dahlias, being uniform pale carmine-rose. It is very reliable, never failing to bloom. Each, 10c.

**ARABELLA**—Flowers medium sized, of perfect ball shape, petals broad, quilled. Sulphur tinted light rose. Ea., 10c.

**DREER'S WHITE**—A splendid Dahlia for decorative purposes. Plants average three feet in height; are bushy, very free flowering. The flowers are very large, of beautiful structure, the petals very broad, beautifully and regularly quilled, forming cylindrical tubes. Ea., 25c.

**DREER'S YELLOW**—In structure Dreer's Yellow resembles Dreer's White, excepting that the flowers are larger, frequently over seven inches in diameter. Ea., \$1.

**DOROTHY PEACOCK**—Well formed flowers of good size and of good form, broad petals, creamy-white at center, shading into pale lilac-rose at outer petals. Each, 25c.

**ELSIE DAVIDSON**—Very full, deep flowers of clear, bright golden-yellow. Each, 20c.

**MADAME ALFRED MAREAU**—One of the very finest Show Dahlias. Large flowers of deep rich pink. Each, 20c.

**MAUDE ADAMS**—Large flowers of perfect ball shape, inner petals creamy-white, passing to pure clear pale pink at outer edge. Delicate and lovely. Each, 50c.

**MERLIN**—Flowers extremely thick and full, very large, high in center. Uniform brilliant cochineal-red. Ea., 20c.

**MRS. DEXTER**—Very beautiful pure salmon. Full, finely formed flowers. Each, 10c.

**MURIEL**—Flowers of good size, and very full, with notched petals. Sulphur deeply tinted apricot. Ea., 20c.

**NORMA**—Flowers large, very full, petals broad and cupped, regularly arranged. Golden-yellow, reverse of petals washed with dark old rose, giving a general color effect of beautiful rich reddish-apricot, deeper in center. Very distinct. Each, 20c.

**ROSE**—Very deep full flowers, with broad petals. In color fuchsia-red deepening at base. Each, 25c.

**STANDARD**—Very dark velvety purple-garnet shaded dark purple-brown. Color very rich. Large flower of perfect ball form with high center. Each, 20c.

**STORM KING**—A very reliable variety, with regular perfectly formed flowers of rich creamy-white. Each, 15c.

**STRADELLA**—Large, full and thick flowers of regular form, with broad petals. Very deep carmine. This is an exceptionally free flowering variety, and is covered with flowers even in adverse seasons. Each, 20c.

## POMPON DAHLIAS

Pompon Dahlias have very small ball-shaped flowers of regular formation.

**AMBER QUEEN**—Rich, clear amber shaded apricot. Ea., 15c.

**DARKEST OF ALL**—Nearly black. Each, 10c.

**DARKNESS**—Very dark purple-garnet. Each, 10c.

**FAIRY QUEEN**—Primrose edged bright rose. Each, 10c.

**PRINCE CHARMING**—Petals cream at the base shading into deep velvety magenta at outer edge. Each, 10c.

**SNOW CLAD**—Small, pure white. Each, 10c.

**SUNBEAM**—Deep carmine-red. Each, 10c.

**VIVID**—Bright scarlet. Each, 10c.

## SINGLE DAHLIAS

**BLANCHE**—Flowers very large, beautiful in shape. The color is very pale yellow, almost a tinted white, shading at tips into rose Nilsson; high golden center. Each, 20c.

**JENNIE WREN**—White, striped and splashed deep purple. Each, 20c.

**MAJESTY**—Large flowers with petals almost circular in shape. The color is extremely rich and handsome, rich, velvety, blackish-garnet with large golden center. Ea., 50c.

**MILDRED**—Clear bright yellow. Each, 25c.

**ROSE PINK CENTURY**—Violet-rose flamed deeper. Ea., 15c.

**THE BRIDE**—Large, pure white flowers. Each, 35c.

**TWENTIETH CENTURY**—Flowers five to seven inches in diameter. Pure white at base and tips, center of petals delicate blush-rose. Each, 15c.

## COLLARETTE DAHLIAS

The Collarette Dahlia is a new form. The flowers are like the single Dahlias except that they have an inner row of short petals around the disk, usually of a different color from the rest of the flower.

**MAURICE RIVOIRE**—Crimson with violet suffusion; collarette creamy-white; center yellow; petals very broad. Each, 25c.

**SOUVENIR DE CHABANNE**—Flowers large. The coloring of the large petals is a combination of old carmine-red and lemon-yellow, the ground color being lemon-yellow and the other color washed onto it, the base of the petal being very bright lemon-yellow. The collarette petals are very long and numerous, lemon-yellow at base, passing to yellowish-white at tips. Center golden-orange. Each, 20c.

## \*GLOXINIAS

This beautiful bulbous plant, like most summer blooming bulbs, is of the easiest culture and makes fine specimens for potting. The plant is dwarf in habit, with large velvety leaves from the root. The very large and finely formed bell-shaped flowers are borne on stems four to six inches in length coming from the root. The colors are usually white, blue, carmine, violet, velvety scarlet, etc., the deeper colors often bordered with white and with throat of contrasting color, beautifully tigered and spotted. All colors mixed. Each, 15c; Dozen, \$1.50, postpaid.

## \*MONTBRETIAS

An extremely pretty and attractive little bulbous plant, with very graceful spikes eight to twelve inches high, bearing from eighteen to thirty of the bright flowers one and one-half to two inches in diameter. The colors are shades of yellow, orange, red and maroon, often with contrasting center. The foliage is grass-like. Plant the bulbs in clumps six inches apart in the open ground in a sunny situation. They should be given a very heavy covering in winter or lifted and placed in a cool cellar with a little dry soil thrown over the bulbs.

**FIRE KING**—Dazzling crimson. Each, 5c; Dozen, 40c.

**CROCUSMAEFLORA**—Brilliant orange. Ea., 5c; Doz., 35c.

**ELDERADO**—Golden-yellow. Each, 5c; Dozen, 40c.

**MIXED**—All colors. Dozen, 30c; 100, \$2.00, postpaid.

## \*TRITOMA (Torch Lily) (Flame Flower)

See also page 85. Handsome and showy border plants with stout stems, three to four feet, bearing large heads of red and orange flowers.

**ALOIDES (Red Hot Poker Plant)**—Each, 25c; Dozen, \$2.50, postpaid.

**EXPRESS**—Early flowering deep salmon. Each, 40c; Dozen, \$4.00, postpaid.

## \*INCARVILLEA

**INCARVILLEA DELAVAYI**—A magnificent plant for the hardy border, especially good planted in groups. The entire plant is stoutly built. The leaves are dark green, ten to twelve inches in length, five to eight in breadth, on heavy stems from the root. The thick flower stalks, also from the root, are from two to three feet in height, bearing on the summit four to ten large, tubular flowers, in color, bright carmine-rose. This is sometimes called the hardy Gloxinia, the shape of the flowers somewhat resembling that of the Gloxinia. Plant in a sunny situation. Each, 15c; Dozen, \$1.50.

**INCARVILLEA GRANDIFLORA CRIMSON**—Plants not quite so tall as the above; very large, crimson flowers. Each, 20c; Dozen, \$2.00.

## ZEPHYRANTHES

Very pretty and easily grown bulbs for pot culture, having Crocus-like flowers and grass-like foliage. Plant in flower pots; give abundance of water; keep in sun. In the winter set the pots in the cellar just as they are. About every three years they should be divided.

**ROSEA**—Clear bright rose. Each, 10c; Doz., 75c, postpaid.

**CANDIDA**—Pure white. Each, 5c; Dozen, 45c, postpaid.

## TUBEROSES

The Tuberose with its beautiful waxen-white flowers and rich fragrance is well known. It may be planted outdoors in spring, but if started in pots and transplanted to the open ground, flowers may be had much earlier.

**LARGE BULBS**—Each, 4c, postpaid; Dozen, 40c, not postpaid. Weight per dozen, 1½ pounds.

## CALADIUM

Fine tropical-looking plant, a favorite for specimen plants or massing. Will grow in ordinary garden soil, but to get best results should be planted in well enriched soil and given an abundance of water.

**EXTRA LARGE BULBS**—Nine to eleven inches in diameter. Each, 15c; Doz., \$1.50. Weight, one pound each.

## ISMENE

One of the loveliest of the summer blooming bulbs, belonging to the Amaryllis family. Two or three weeks after planting the large bulbs send up stalks two feet high, bearing several large creamy-white flowers, with throat of yellowish green striped darker, and conspicuous yellow stamens. It is very easily grown and does well either as a pot plant or in beds. Each, 10c; Dozen, \$1.00.



# IRIS

The Iris is as nearly perfect as a plant can be. It is absolutely hardy, it resists perfectly extremes of moisture and drought, it is one of the most decorative, and one of the most beautiful in form and color. The flowers are wonderful in structure, with colors ranging through all shades of blue, lilac, violet, yellow and brown, varying from pure white to purple so dark as to be almost black; shades of rose and crimson are also to be found. The flowers are nearly all shaded and penciled with one or more different colors, some of them with contrasting borders, and ruffled edges. Some flowers are of bright and vivid coloring, some of dusky richness and texture like fine silk velvet, others of pale loveliness with petals as delicate as a lily, having a frosty sheen in the sunlight. Some of the most beautiful varieties are also the cheapest, so that one may have a bed or border with little initial expense, and the plants increase very rapidly. The blooming season is a long one, beginning with the dwarf Pumilas at the end of March, followed by the Intermediate and the Tall Bearded, ending with the royal Japanese in July.

## TALL BEARDED IRISES (Iris Germanica)

The Irises of this section delight in hot sunshine and well drained situation. They will do well in any soil excepting a wet one, which causes decay of the creeping rootstock, or rhizome. They may be planted in spring but during August or September (their dormant season) is the better time; if planting is done later than this, give a light covering of straw or litter. Keep soil well stirred. For fertilizer, bone meal is the best, unless one can get manure that is very old; fresh manure is sure destruction. In this section are included the Germanica, flowering in May, of but few varieties, including the old-fashioned blue "Flag;" Amoena, having white standards; Neglecta, with standards ranging from lavender to purple; Pallida, with tall, strong plants, wide leaves, and large sweet-scented flowers in shades of lavender, purple and blue, with some roses; Squalens, having clouded almost transparent standards of copper, bronze and fawn; Plicata, with beautifully frilled colored margins on a white ground; Variegata, with standards of yellow in various shades. In the descriptions the following abbreviations are used: Am., Amoena; Neg., Neglecta; Pall., Pallida; Plic., Plicata; Sq., Squalens; Var., Variegata. S. means standards or upright petals; F., falls or drooping petals.

## GENERAL COLLECTION TALL BEARDED IRISES

Varieties marked \* are ordered in import.

\***AGNES SOREL**—F. bright blue; S. bright yellow shaded slate. Each, 15c; Dozen, \$1.50.

\***AIXO**—F. rose; S. lilac. Each, 35c; Dozen, \$3.50.

**ALBICANS (Princess of Wales)**—A beautiful Iris, and the only absolutely pure white Germanica. Each, 35c; Dozen, \$3.50.

**AMAS**—(Ger.) Early. Very large flower. F. bright violet, transparent, very full; S. very long and broad, glistening dark violet, veined at the base; long bright yellow beard. Two feet. Each, 30c; Dozen, \$3.00.

**ARCHEVEQUE**—(Neg.) New. Early. F. large, dark velvety violet with brighter middle band; S. reddish-violet. Each, 75c.

**ARNOLDS**—S. rosy-bronze; F. rich velvety purple. Thirty inches. Each, 35c; Dozen, \$3.50.

\***ASSUERUS**—Flowers self-colored, beautiful carmine-violet with yellow beard. Twenty-six inches. Each, 25c; Dozen, \$2.50.

**BELLE HORTENSE**—Semi-early. F. white striped with violet at the base only; S. slightly striped with violet over all the surface. Twenty-three inches. Each, 25c; Dozen, \$2.50.

**BLACK KNIGHT (Syn. Black Prince)**—A beautiful new Iris of wonderful richness and depth of color. S. intense deep violet-blue; F. deep velvety purple. Very late bloomer. This is one of the rarest and scarcest Irises in the world, and we doubt if a hundred specimens could be assembled together. It is sometimes sold under the name "Black Prince," and should not be confused with the variety Kochil, which is also sometimes called "Black Prince." Kochil is a very charming Iris, with large, beautiful flowers of deep purple violet, but does not possess the wonderful velvety texture which makes of the Black Knight a marked flower. Ea., \$1.50.

**BLUE JAY (Farr)**—(Neg.) S. bright clear blue; F. intense dark blue, 30 in. An extremely bright and beautiful flower. Ea., 50c.

**BRIDESMAID**—Semi-early. F. white, striped violet at base only; S. slightly striped with violet over entire surface. Twenty-nine inches. Each, 25c; Dozen, \$2.50.

**BRONZE BEAUTY**—S. clouded yellow; F. ruby-lavender with gold crest. Each, 15c; Dozen, \$1.50.

**CANARY BIRD (Syn. Flavescans)**—Very early. Flowers self-colored very pale yellow; F. slightly striped brown at the base. Twenty-nine inches. Each, 15c; Dozen, \$1.50.

**CANDELABRE (Neg.)** Semi-early. Flowers medium sized; F. dusky violet; beard yellow; S. full, very erect, with white ground washed with violet and striped around the crest. Each, 35c; Dozen, \$3.50.

**CAPRICE**—(Sq.) Semi-early. Very vigorous. Very large flowers of dark violet-rose. Coloring very distinct. Twenty-four inches. Each, 50c.

**CELESTE**—(Pall.) Delicately beautiful flowers, self-colored pale sky-blue. Very free. Each, 20c; Dozen, \$2.00.

**CHERUBIN**—New. Semi-early. S. soft lilac; F. somewhat darker, lightly striped with brown at the base. Each, 50c.

**CHESTER HUNT (Farr)**—(Pall.) S. celestial-blue; F. dark ultramarine-blue, bordered pale blue; stigmas light blue. Twenty-seven inches. Each, 75c.

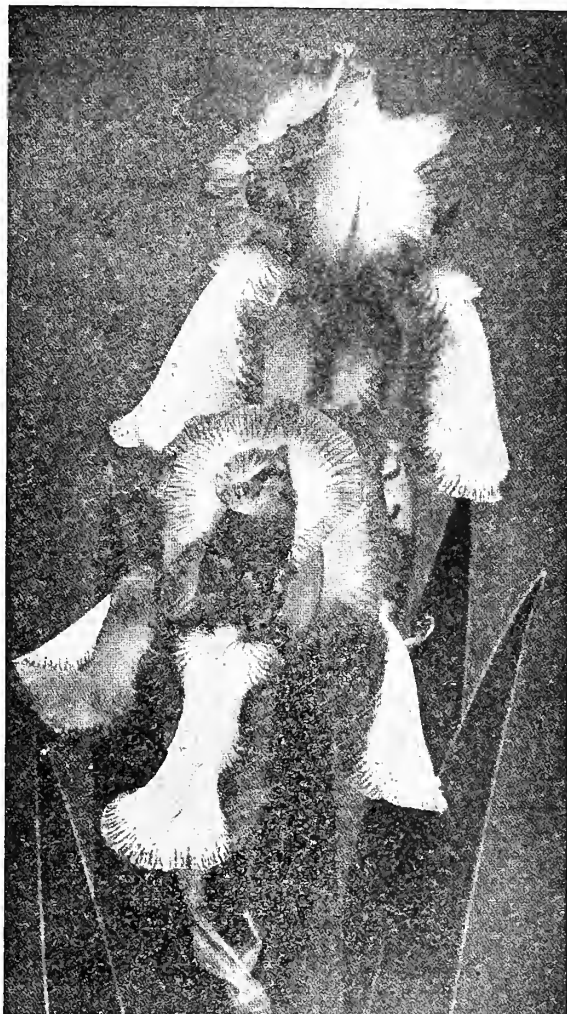
**COMTESSE DE COURCY**—Semi-early. S. large, very fresh bright lilac; F. pure white, slightly bordered with lilac. Twenty-seven inches. Each, 25c; Dozen, \$2.50.

**DALMARIS**—S. pale gray-blue; F. darker, shaded violet-brown. Coloring very distinct. Each, 30c; Dozen, \$3.00.

**DARIUS**—S. rich canary-yellow; F. lilac margined white; orange beard. Very distinct. Twenty inches. Ea., 25c; Doz., \$2.50.

**DEJAZET**—New. Late. Very large flowers. S. bronzy-rose; F. light reddish-violet; beard and styles yellow; crest veined brown. One of the most beautiful. Each, 60c.

**DUC DECAZES**—Very late. F. very rich reddish-violet; S. pale lilac. Twenty-nine inches. Each, 35c; Dozen, \$3.50.



Madame Chereau (See page 98).

\***DUCHESSE DE CHATEAUFORT**—F. velvety blue; S. slaty-blue. Each, 25c; Dozen, \$2.50.

**DUCHESSE DE NEMOURS**—Semi-early. S. white; F. pure white, striped with violet. Twenty-nine in. Ea., 25c; Doz., \$2.50.

**E. L. CRANDALL (Farr)**—(Plic.) S. pure white; F. white heavily bordered with deep blue at the base. Dwarf plant, eighteen inches in height. Each, 75c.

**ELDORADO**—Coloring very curious, a mingling of yellow and violet. F. yellow washed with violet, having the haft strongly striped with brown; S. violet clouded with yellow; beard bright yellow. Each, 85c.

**FAIRY**—(Plic.) White delicately bordered and suffused soft blue. Daintiest and sweetest of Irises. Two ft. Ea., 25c; Doz., \$2.50.

**FAUSTINE**—Semi-early. F. very bright deep violet strongly veined with white; S. lilac. Coloring very soft and beautiful. Twenty-seven inches. Each, 25c; Dozen, \$2.50.

**FLORENTINE (Species) (Syn. Silver King)**—Very early. Large fragrant white flowers with very slight lilac reflections. Twenty-nine inches. Each, 15c; Dozen, \$1.50.

\***FLORENTINE, QUEEN EMMA (Syn. Alba Odorata)**—Pure white slightly tinted blue; S. long and tapering; F. very long. Fragrant. Vigorous plant. Each, 25c; Dozen, \$2.50.

**FOSTER'S YELLOW**—F. and S. rich creamy-yellow, intermediate between Canary Bird and Aurea. 18 in. Ea., 25c; Doz., \$2.50.

**FRO**—New. S. deep gold; F. chestnut-brown. Each, 50c.

\***GISEL**—Slaty-blue spotted with white. Each, 25c.

\***HAILEIRIANA**—Bright porcelain-blue with yellow crest. Ea., 25c.

\***HAMLET**—F. dark velvety reddish-purple; S. dusky yellow. Each, 25c; Dozen, \$2.50.

**HEBE**—White delicately suffused soft blue. Each, 35c.

**HER MAJESTY**—New. S. lovely bright rose; F. bright crimson tinted deeper. Very beautiful. Each, 25c; Dozen, \$2.50.

**ILLAWATHA (Farr)**—(Neg.) S. pale lavender flushed rose; F. royal-purple bordered lavender. 28 inches. Each, \$1.00.

**HONORABILIS**—S. golden; F. rich mahogany-brown. Eighteen inches. Each, 15c; Dozen, \$1.50.

**INNOCENZA**—Late. Pure white with bright golden-yellow crest. F. slightly tipped with brown at the base. Delicate and lovely. Twenty-six in. Each, 25c; Dozen, \$2.50.

**ISOLINE**—Large, beautifully formed flowers of opalescent coloring. S. silvery-lilac; F. mauve with orange beard. Ea., \$1.25.



**JACQUESIANA**—F. velvety reddish-violet, almost black, of wonderful substance and depth of color; S. fawn. Beautiful and striking. Thirty inches. Each, 35c; Dozen, \$3.50.

**JEANNE d'ARC**—Semi-early. Large flowers. S. full, very fresh bright lilac; F. pure white slightly bordered with lilac. Thirty-one inches. Each, 60c.

**JULETTE**—Semi-late. S. pure white; F. pure violet, striped and margined brighter. Twenty-seven in. Each, 25c; Dozen, \$2.50.

**JUNATA** (Farr)—(Pall.) The tallest of the Bearded Irises. Large, fragrant flowers of clear blue, deeper than Dalmatica. Ea. 75c.

**KATHLEEN**—Charming flowers with S. and F. of soft rose-lilac. Each, 50c.

**KHEDIVE**—Beautiful soft lavender with orange beard. Thirty-three inches. Each, 25c; Dozen, \$2.50.

**KING OF IRIS**—A brilliant and beautiful new Iris. S. clear lemon-yellow; F. rich maroon bordered yellow. Ea. 35c; Doz., \$3.50.

**KHARPUT**—(Ger.) Early. Very closely related to the old German Iris, but with flowers as large again. S. bright violet; F. dark violet, very long, tongue-shaped. Thirty inches. Each, 25c.

**KOCHII** (Syn. *Atropurpurea*, *Erebe*, *Black Prince*)—(Ger.) Very early. Very large and beautiful flowers, of very deep pure violet. Twenty-three inches. Each, 20c; Dozen, \$2.00.

**LADY HOLLAND**—S. bright yellow; F. dark plum with white middle line. Each, 25c.

**\*LADY JANE**—F. carmine-mahogany; S. dead leaf; throat yellow. Thirty inches. Each, 15c; Dozen, \$1.50.

**\*LADY SEMOUR**—Bright blue striped with violet. Bright yellow throat. Each, 20c; Dozen, \$2.00.

**\*LA TENDRESSE**—(Pall.) Very tall and vigorous. Large flowers of bright blue slightly tinted purple. Four feet. Each, 35c; Dozen, \$3.50.

**LEDA** (Farr)—(Plic.) S. white frilled and dotted rose-lilac; F. white. Each, 75c.

**LORELEX**—(Var.) New. S. pale yellow; F. ultramarine-blue bordered cream. Each, 35c; Dozen, \$3.50.

**MARY GARDEN** (Farr)—(Sq.) S. pale yellow flushed pale lavender; long, drooping F. creamy-white striped and veined maroon; stigmas clear yellow. An elegant flower with very distinct coloring and marking. Twenty-eight in. Each, 75c.

**MAORI KING**—(Var.) One of the most brilliant. S. rich golden-yellow; F. velvety crimson bordered gold. Eighteen inches. Each, 25c; Dozen, \$2.50.

**\*MAURELIE**—S. old gold; F. marbled brown. Ea., 25c; Doz., \$2.50.

**MME. CHEREAU**—(Plic.) One of the loveliest of all Irises. Large flowers of pure white elegantly frilled with a wide border of clear blue. Thirty-two inches. Ea., 15c; Doz., \$1.50.

**MME. GUERVILLE**—Semi-late. F. striped with bluish-violet on white ground; S. bright violet veined darker. Thirty-one inches. Each, 25c; Dozen, \$2.50.

**MME. PACQUETTE**—Flowers self-colored bright rosy-claret. Very handsome. Forty-two inches. Each, 25c; Dozen, \$2.50.

**\*MEXICAINE**—S. very clear yellow; F. brownish-red. Eighteen inches. Each, 25c; Dozen, \$2.50.

**MIRIAM**—New. Semi-late. Flowers large; S. white very slightly veined lilac; F. marbled violet-red with white middle line; bearded white. Plant semi-dwarf. Each, 60c.

**MISS WILLMOT**—New. Early. Very large flowers with very full standards of yellowish-white; F. bluish-white with yellow beard and hafts. Beautiful plant, robust and free flowering. Ea., 60c.

**MITHRAS**—New. S. light yellow; F. brilliant wine-red, margined deep yellow. Each, 50c.

**MONSIGNOR**—New. Semi-late. Large flowers. S. bright violet-blue, F. having white haft, the blade bright violet-blue, very heavily veined and overlaid with dusky velvety violet. A wonderful Iris, of very warm and superb coloring. Twenty-three inches. Each, 75c.

**MRS. G. DARWIN** (Am.) A beautiful new hybrid with pure white flowers, the F. reticulated violet and gold at base. Each, 35c; Dozen, \$3.50.

**MRS. H. DARWIN**—(Am.) New. Very beautiful, early and free flowering. S. clear white; F. white veined violet at the base. Two feet. Each, 15c; Dozen, \$1.50.

**MRS. NEUBRONNER**—(Var.) Semi-early and vigorous. Flowers large, deep golden-yellow; F. finely veined with brown around the crest. Twenty-eight inches. Ea., 35c; Doz., \$3.50.

**MRS. G. REUTH**—S. white shaded and veined bluish-gray; F. white frilled soft blue. Flowers very large. Ea., 25c; Doz., \$2.50.

**MUNICA**—S. bright gold; F. mahogany-brown. Ea., 25c; Doz., \$2.50.

**MURAT**—S. mingled fawn and coppery-rose; F. purplish-crimson. Twenty-three inches. Each, 15c.

**NIBELUNGEN**—New. S. fawn-yellow; F. violet-purple bordered fawn. Each, 50c.

**NOKOMIS** (Farr)—(Am.) S. pale lavender-white; F. velvety dark violet-blue veined white. Flowers medium; plant tall and vigorous, free flowering. Each, 50c.

**NUEE d'ORAGE** (Storm Cloud)—Semi-early. Plant tall and vigorous, large flowers having S. two and three-fourths inches long, of smoky lilac washed with yellow over the borders; F. full three and one-half inches long, violet-blue strongly tinged around the base. Very striking. Each, 35c.

**ORIENTAL** (Farr)—(Pall.) S. clear blue; F. rich royal-blue. The very conspicuous orange beards give a beautiful effect of mingled blue and gold to the flowers. Thirty-two in. Each, 75c.

**OSIS**—S. blue; F. black velvety purple. 20 in. Ea., 25c; Doz., \$2.50.

**OTHELLO**—S. dusky violet; F. black-purple, coloring very deep, very rich and very dark. Each, 20c; Dozen, \$2.00.

**PALLIDA DALMATICA** (Syn. *Princess Beatrice*)—Very large fragrant flowers of beautiful clear silvery-lavender with bluish-yellow beard. The F. are full and round, carried almost horizontally. The plants are very tall and strong. A superb variety. Forty inches. Each, 30c; Dozen, \$3.50.

**PALLIDA MANDRALISCAE**—Large, handsome flowers of rich lavender-purple. Forty-two inches. Each, 25c; Dozen, \$2.50.

**PALLIDA SPECIOSA** (Syns. *Great Purple* or *Turkey Flag*)—S. pure violet; F. reddish-violet. Flowers very large; a little later than Dalmatica. Forty inches. Each, 25c; Dozen, \$2.50.

**PARC DE NEUILLY**—Semi-early. Large flowers of perfect form, self-colored deep blue-violet; beards yellow. Twenty-seven inches. Each, 50c.

**PALLIDA FOLII VARIEGATA**—Very elegant variety, with grayish-green foliage striped with white. The flower stalks are forty inches in length, each one carrying from five to nine beautiful pale blue flowers, having the fragrance of orange blossoms. Each, 75c.

**PARISIANA**—New. Semi-early. Flowers very large, white, largely striped and spotted with violet on the borders of all the divisions; beard and styles yellow. Certificate of merit from the National Horticultural Society of France. Each, 60c.

**PAULINE** (Farr)—(Pall.) Unusually large flowers of rich pansy-violet, with orange beards. Very fragrant. Each, 75c.

**PEAUENAU** (Peacock)—S. olive-gold; F. bluish-plum, bordered gold. Very brilliant and distinct. Each, 75c.

**POCAHONTAS** (Farr)—(Plic.) Very large flowers of orchid type with frilled petals. S. and F. pure white, S. faintly bordered pale blue. Each, 75c.

**PRINCE d'ORANGE**—Semi-early. S. large, full, very bright golden-yellow; F. striped and washed brown. Each, 25c; Dozen, \$2.50.

**\*PRINCESS VICTORIA LUISE**—New. S. primrose; F. brilliant purple. Each, 50c.

**PULCHERRIMA**—Semi-late. Large flowers self-colored lavender, brighter in the standards. 31 in. Ea., 25c; Doz., \$2.50.

**QUAKER LADY** (Farr)—(Sq. x Pall.) S. smoky lavender shaded yellow; F. Ageratum-blue and old gold. Elegantly formed flowers of very distinct coloring. Thirty-eight in. Each, \$1.00.

**QUEEN OF GYPSIES**—Late. S. dead leaf and dusky yellow; F. blackish-purple. Two feet. Each, 15c; Dozen, \$1.50.

**QUEEN OF MAY**—Semi-early. F. and S. self-colored beautiful bright rose, slightly lilacish. Coloring unique. Robust and free flowering. Thirty-two inches. Each, 15c; Dozen, \$1.50.

**REBECCA**—S. very full, straw-yellow; F. velvety brownish-violet. Twenty-nine inches. Each, 15c; Dozen, \$1.50.

**RED CLOUD** (Farr)—(Sq.) S. rosy-lavender, bronze; F. velvety maroon-crimson reticulated yellow; stigmas old gold. Two feet. Each, \$1.00.

**RETICULATA ALBA**—(Am.) S. white; F. violet-purple edged and reticulated white. Each, 15c; Dozen, \$1.50.

**RETICULATA PURPUREA**—Late. S. self-colored lilac; F. very full, pure violet with middle line and border of lilac. Twenty-nine inches. Each, 25c; Dozen, \$2.50.

**RHEIN NIXE**—S. ivory-white; F. raspberry-purple, edged white. Very beautiful grown in masses. Thirty-six inches. Each, 50c.

**SAMBUCINA** (Species)—S. coppery-rose; F. rose-purple with orange crest. Showy flowers with the fragrance of the Elder blossom. Twenty-seven inches. Each, 15c; Dozen, \$1.50.

**SAPPHO**—(Plic.) Large flowers. S. white frilled lilac; F. white reticulated lilac at base. Two feet. Each, 35c.

**\*SCEPTRE**—S. mauve washed with rose; F. rich purple-violet. Each, 25c; Dozen, \$2.50.

**SIR WALTER SCOTT**—(Sq.) S. bronzy-yellow; F. rich crimson-brown. Twenty-six inches. Each, 15c; Dozen, \$1.50.

**\*SPARTE**—S. deep yellow; F. slaty-rose striped with white. Each, 35c; Dozen, \$3.50.

**TRAUTLIEB**—New. Self-colored beautiful uniform soft rose. Each, 40c.

**UNIQUE**—(Am.) S. white; F. violet suffused white. Each, 15c.

**VENUS**—S. lemon-yellow shading to golden-yellow toward base; F. white deeply veined purple. Each, 15c; Dozen, \$1.50.

**\*VICTORINE**—S. mottled blue; F. violet-blue mottled white. Very rare, distinct and beautiful. Twenty-seven inches. Each, 35c.

**VIERGE MARIE**—Late. S. self-colored, superb, pure white; F. very lightly striped at the base. Twenty-nine inches. Each, 25c; Dozen, \$2.50.

**VIGACEA GRANDIFLORA**—Semi-late. F. self-colored bright violet; S. a little darker. Thirty-one in. Ea., 25c; Doz., \$2.50.

**BEAUTIFUL MIXTURE OF TALL BEARDED IRISES**—All colors. Doz., \$1.15, prepaid; by express, not prepaid, Doz., \$1.00; 100, \$6.00.

## INTERMEDIATE IRISES

These Irises fill the gap between the Tall Bearded Irises and the Dwarf Irises or Iris Pumila by their height, the dimensions of their flowers and their foliage, and also by their blooming season. They are obtained by crosses between the Tall Bearded Iris and the Dwarf Iris.

**BRUNETTE**—S. primrose-yellow; F. Primrose-yellow shot with olive and marbled violet; beard rich orange-yellow; large flower. 35c; Dozen, \$3.50.

**CHARMANT**—S. palest blue; F. striped dark blue. 35c.

**DOROTHEA**—Very early. Very large and beautiful flowers, of soft mauve, with F. very full, strongly striped with brown on the haft. Plant dwarf. Of excellent merit. 35c.

**FREYA**—S. pearl color; F. flamed violet. 35c; Dozen, \$3.50.

**FRITJOF**—S. soft lavender; F. soft purple shaded lavender; large flowers. 35c; Dozen, \$3.50.

**HELGE**—Flowers of lemon-yellow with pearly shading. 50c.

**INGEBORG**—Very large pure white flowers with handsome form. 50c.

**IVORINE**—Very early. Large flowers self-colored ivory-white. Sixteen inches. Each, 35c; Dozen, \$3.50.

**QUEEN FLAVIA**—Large primrose-yellow, self-colored flowers. One of the best. 35c; Dozen, \$3.50.

**WALHALLA**—S. and F. bright rosy-claret. Deliciously fragrant. 25c; Dozen, \$2.50.

## DWARF BEARDED IRISES

The beautiful little Dwarf Irises are very useful for edging and for planting in front of the taller varieties. They flower through April and May, the earliest ones beginning the end of March.

**EBURNEA**—S. almost pure white; F. pale yellow slightly tinted azure-blue. One foot. Each, 15c; Dozen, \$1.50.

**EXCELSA**—Very large flowers of deep clear yellow, with orange beard. Eighteen inches. Each, 15c; Dozen, \$1.50.

**PUMILA**—The Pumila are very dwarf, and are among the earliest to bloom.

**PUMILA ALBA**—Pure silvery-white. Each, 15c; Dozen, \$1.50.



**PUMILA BRIGHT REDDISH VIOLET**—Very dwarf plant. S. bright-reddish-violet; F. darker; beard bright yellow. Ea., 15c; Doz., \$1.50.  
**PUMILA CAERULEA**—Beautiful sky-blue. Plants four inches in height. Each, 15c; Dozen, \$1.50.  
**PUMILA EUBURNEA**—S. almost pure white; F. white slightly washed bluish, one foot. Each, 25c; Dozen, \$2.50.  
**PUMILA EXCELSA**—Very large flowers of clear deep yellow with orange beard. Eighteen inches. Each, 25c; Dozen, \$2.50.  
**PUMILA HYBRIDA SCHNEEUEPPE (Snowup)**—New, large flowering variety. S. white; F. white slightly reticulated yellow at base. Flower stalks eight inches in height. Each, 35c; Dozen, \$3.50.  
**PUMILA MIXED**—Dozen, \$1.50.

## BEARDLESS IRISES

The Beardless Irises include many interesting and beautiful plants. Cristata, Foetidissima and Tectorum require a dry sunny situation. Aurea, Monspur and Ochroleuca may be planted by the waterside, but with the crowns above water level. Pseudo-acorus may be grown partially in water. The shape of the flowers differs from that of the Bearded Irises, the divisions are very much narrower.

**AUREA (Species)**—An especially beautiful variety with large deep golden-yellow flowers. S. very erect, three-fourths inches broad by three inches in length, with waved edges; long oval shaped F. Stately plant four feet in height. June and July. Each, 35c; Dozen, \$3.50.

**CRISTATA (Evansia)**—A very pretty creeping Iris, only three inches in height, with small flowers of rich amethyst-blue. May. Each, 25c; Dozen, \$2.50.

**FOETIDISSIMA (Syn. Gladwyn Iris)**—Purple flowers followed by bright scarlet seed pods. Evergreen foliage. Eighteen inches. Each, 25c; Dozen, \$2.50.

**MISSOURIENSIS**—S. and F. long and narrow; blade of F. covered with diffuse lavender veins, on very pale lavender ground. Very pretty and free-flowering. May. Each, 35c; Dozen, \$3.50.

**MONSPUR**—Handsome new hybrids. Strong plants with lovely flowers in various shades of blue. Four feet. Mixed. Each, 25c; Dozen, \$2.50.

**OGHROLEUCA (Syn. Orientalis Gigantea)**—The Gold-banded Iris. Very large ivory-white flowers, with bright yellow blotch at base of F. Stately plants five feet in height. June and July. Each, 25c; Dozen, \$2.50.

**PSEUDO-ACORUS**—The common yellow Water-Flag. Bright yellow flowers. Three feet. May and June. Each, 15c; Dozen, \$1.50.

**TECTORUM (Syn. Tomiolotha.) (Evansia)**—A rare and interesting species with lovely blue star-shaped flowers of most beautiful structure. The spreading S. are slightly concave on the upper surface; the F. are ruffled, and have a white crest marked violet-brown. The foliage is evergreen, and the plants grow to one foot in height. It should be given a slight covering of straw in the winter. This is the "Roof Iris" of Japan, where it is grown on thatched roofs of the cottages. June. Ea., 25c; Doz., \$2.50.

## SIBERIAN IRIS

The Siberian Iris has narrow, grassy foliage, tall slender stems and a wealth of small graceful flowers. To display its full beauty, it should be grown in masses.

**SIBIRICA ORIENTALIS (Syn. Sanguinea)**—Flowers of the most brilliant blue. S. long and narrow, curving together at the apex; upper part of F. white veined brown; buds enclosed in conspicuous red spathe valves. Three feet. Each, 15c; Dozen, \$1.50.

**SNOW QUEEN**—The habit of plant is similar to above, but with large, ivory-white flowers. Each, 25c; Dozen, \$2.50.

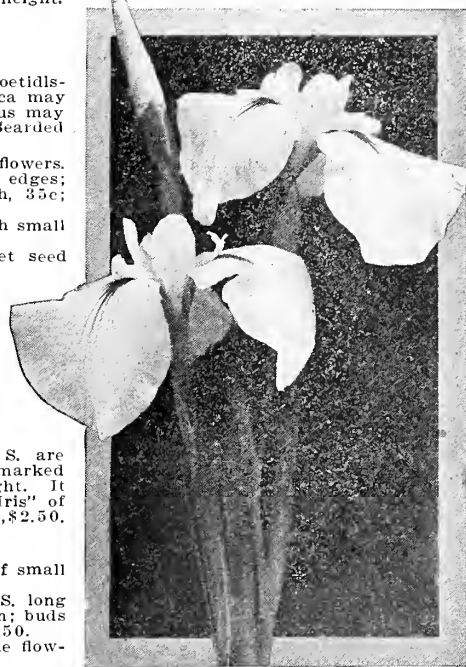
**VIRGINICA**—This is the only American species of the Sibirica group, and is quite distinct from the others. It is a charming plant, of graceful habit. The very slender wiry stems are peculiarly bent. The flowers, of a pleasing violet-blue, are very freely borne. It is very vigorous, adapting itself well to different soils and conditions. Eighteen to twenty-four inches. Each, 25c; Dozen, \$2.50.

## JAPANESE IRIS

The Japanese Irises have flowers from six to eight inches across, of wonderful coloring. The colors usually are white, crimson, rose, lilac, lavender, violet and blue, sometimes self-colored but more often having two shades combined, and with a golden-yellow blotch. The single varieties have three large drooping falls, the double varieties six. They are easily grown, thriving in well enriched and mellow loam. The soil must be kept well worked. They like plenty of moisture in summer, although it is not absolutely necessary, but water standing on them in winter will kill them. Plant in early spring, the last of August or beginning of September. If planted late, they should be well covered with straw.

Price, 25 Cents Each; \$2.50 per Dozen

2. **ASPASIE**—(Single.) Flower self-colored, beautiful mauve-blue.
3. **ASTARTE**—(Double.) Very large flowers, self-colored, beautiful dark violet, haft bright yellow.
4. **CIRCE**—(Double.) Dark violet-blue, finely lined with white, haft bright yellow, reverse of styles pure white.
5. **DATE DOGU**—(Single.) Three large violet-blue F., small center petals claret.
7. **EUCCHARIS**—(Double.) Very large flowers of pure white, haft bright yellow. Plant of grand effect.
8. **EUMEE**—(Single.) Dark reddish-violet, round F. of very heavy texture, the S. narrow and erect, purple in color.
9. **GALATHEE**—(Single.) Very large flowers, the outer divisions having a bluish-white ground strongly striped with bluish-violet; inner divisions reddish-violet, margined white.
10. **GERKA-NO-NAMI**—(Single.) Very large pure white flowers with yellow crest; a very early variety, very effective.
11. **HANO-NO-NISHIKI**—(Single.) Bright violet strongly veined with white.
12. **HELENE**—(Double.) Large flowers, bright blue ground, slightly veined darker blue; haft bright yellow; styles deep violet.
13. **HERCULE**—(Double.) Very large flowers, usually seven inches in diameter, ground clear lilac-blue, delicately washed and rayed with violet-blue; haft bright yellow.
14. **IPHIGENIE**—(Double.) Early. Very large flowers of very beautiful dark lilac.
15. **ISABELLE**—(Single.) Very pretty coloring of soft rosy-lilac, divisions veined with violet.
16. **KUNA-FUNJIN**—(Double.) White with a broad border of magenta-lilac.
17. **MELPOMENE**—(Double.) Large flowers of soft blue, distinctly veined with dark blue; haft bright yellow; styles spotted bright violet.
18. **MINERVE**—(Single.) Flowers white, slightly tinted rose; haft bright yellow; S. rose.
20. **NEPTUNE**—(Single.) Superb coloring, velvety violet, divisions remarkably broad, full.
21. **NEREIDE**—(Double.) Very large flowers, beautiful indigo-blue, bright yellow haft.
29. **NINX**—White ground, very large central spots of fresh rose; styles white; coloring very distinct.
22. **PATROCLE**—(Single.) Large flowers of superb dark reddish-violet.
24. **PROSERPINE**—(Single.) Large flowers of bright blue, veined and spotted with dark blue; plant very vigorous.
25. **REINE DES BULGARES**—(Single.) Soft lilac-blue finely veined with white, small yellow haft, the lilac a little more pronounced in the S.
27. **SHI-UN-RYO**—(Single.) Ground of grayish-white, deeply and densely suffused with violet; crest yellow.
28. **UJI-NO-HOTARU**—(Double.) Very large flowers of dark violet-purple tinted with blue; very late.
29. **YAYAUURA**—(Single.) White veined and marbled with lilac.
31. **YOHIMO**—(Double.) Cream-white, delicately veined with violet.



Japanese Iris Shi-Un-Ryo.

## Collection A TALL BEARDED IRISES

Mme. Chereau	.....	\$0.15
Céleste	.....	.20
Queen of May	.....	.15
Jacquesiana	.....	.35
Foster's Yellow	.....	.25
Kochii	.....	.20
Mrs. G. Darwin	.....	.15
Violacea Grandiflora	.....	.25
Honorabilis	.....	.15
Queen of Gypsies	.....	.15

\$2.00

We will give one bulb of each variety for \$1.50.

## Collection B TALL BEARDED IRISES

Parc de Neuilly	.....	\$0.50
Oriental	.....	.75
Pallida Dalmatica	.....	.30
Pallida Mandraliscae	.....	.25
Faustine	.....	.25
Mme. Chereau	.....	.15
Jeanne d'Arc	.....	.60
Rhein Nixe	.....	.50
Caprice	.....	.50
Queen of May	.....	.15
Sambucina	.....	.15
Loreley	.....	.35
Hamlet	.....	.75
Innocenza	.....	.25
Nuee d'Orange	.....	.35
Mrs. Neubronner	.....	.35
Prince d'Orange	.....	.25

\$6.65

We will give one bulb of each variety for \$5.00.

## IRIS SEED

Plant outdoors in late autumn, in beds or in pots sunk in the ground. We offer seed from one of the great French hybridizers.

**IRIS PUMILA**—Pkt., 10c.  
**IRIS GERMANICA**—Pkt., 10c.  
**JAPANESE IRIS**—Pkt., 10c.



# CANNAS

Cannas have been used as bedding plants as long as one can remember, and the old forms are familiar to everyone. They had insignificant flowers and were grown only for the handsome foliage, but for over fifty years the hybridists have been at work on this plant, and now, instead of the insignificant flowers of the old "Indian Shot Plant," we have flowers six to eight inches across, great clusters of them, in varied and gorgeous coloring, borne continuously all summer long.

Plant Cannas when danger from frost is over. If roots have lain dormant all winter, separate them in March or April, selecting those with three or four eyes. If especially early plants are wanted, put them into rich soil, and when they have developed about six inches of growth, transplant them outdoors. Have ground deeply dug and thoroughly worked. Plant eighteen inches apart. Give plenty of water and keep dead blooms picked off. Have the ground well worked.

We will supply all sorts priced  
15c each at.....\$1.50 per doz. 30c each at.....\$3.00 per doz.  
20c each at..... 2.00 per doz. 35c each at..... 3.50 per doz.

**BEACON**—Four to four and one-half feet. Green foliage. Flowers of very rich cardinal-red, produced in great masses; remarkably free blooming. Each, 15c.

**BETSY ROSS**—Three feet. Green foliage. Beautiful Begonia-rose flowers borne freely in large heads. Each, 20c.

**BRANDYWINE**—Three and one-half feet. Bronze foliage. Brilliant red flowers borne in great abundance throughout the whole season. Fine for planting in masses. Each, 15c.

**CALIFORNIA**—Four feet. Green foliage. Flowers of pure rich orange with a sheen of gold, having a slight tint of bright rose in the throat; tongue flecked carmine; coloring brilliant and beautiful. Flowers of medium size and borne freely. A striking and decorative plant. Each, 15c.

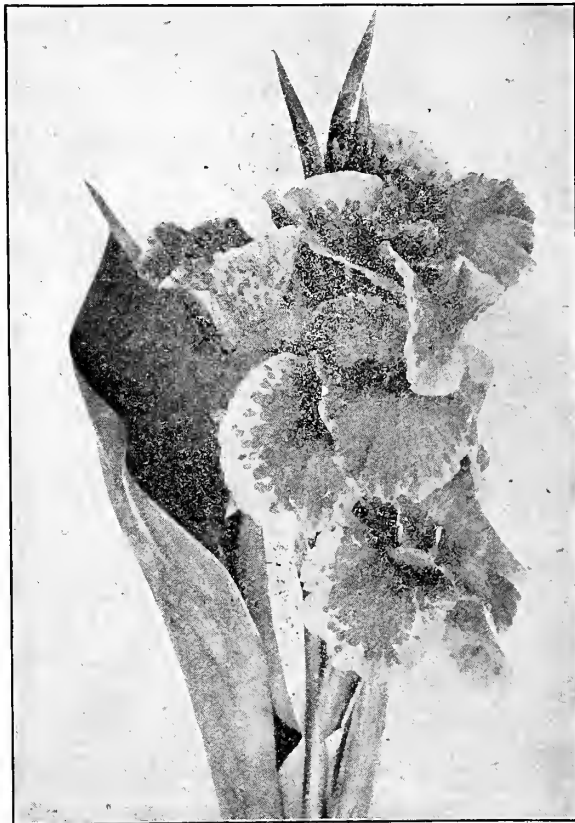
**CITY OF PORTLAND**—Three and one-half feet. The color is a beautiful glowing pink, deeper in color than its parent, Mrs. Alfred F. Conard, and the flowers are produced in greatest profusion on strong, erect, branching stalks. It is an early and continuous bloomer, blooming freely in hot or cool weather. Experts last season pronounced it the finest all around pink Canna to date. Ea., 50c.

**FLAG OF TRUCE**—Four ft. A large flowered, cream-white Canna, with faint pink dots on each petal and a sulphur-colored tongue. When a short distance from the flowers they appear pure white. Each, 60c.

**GAITY**—Five feet. Reddish-orange mottled with carmine and edged with yellow. The tongue is yellow and densely spotted with carmine. Each, 50c.

**GLADIFLORA**—Three and one-half feet. Green foliage; flowers crimson, changing to carmine-rose, edged gold. Flowers well formed, resembling large Gladioli. The round petals are so wide they overlap each other. Each, 20c.

**GLADIATOR**—Four and one-half feet. Green foliage; very large flowers of rich golden-yellow speckled turkey-red; tongue mingled golden-yellow and cherry-red. Each, 20c.



Gladiolus.



King Humbert.

**JANE ADDAMS**—Four and one-half feet. True bright buttercup-yellow. Each, 30c.

**KATE F. DEEMER**—Four feet. Green foliage. The splendid flowers are described as "a rich oriole-yellow, which gradually gives place to turkey-red in the center." The throat of the flower is in striking contrast with the rest of the blossom, which turns almost white. The rich yellow buds on reddish-bronze stems, combined with the yellow and white flowers, make a fascinating combination. Each, 20c.

**KING HUMBERT**—Four feet. Bronze foliage, with brownish-green stripes, large and thick leaves. The large flowers, of the orchid type, are of bright orange-scarlet, streaked crimson. Each, 15c.

**MRS. ALFRED F. CONARD**—Four feet. Fine dark green foliage. Lovely salmon-pink flowers of great size and beauty, abundantly produced. This is the most popular pink Canna ever introduced, and is unsurpassed for planting, either singly or in large beds. Each, 25c.

**METEOR**—Five feet. Green foliage. Large flowers of rich deep glowing cardinal, borne in great masses all summer long. The best red Canna. Each, 25c.

**OLYMPIC**—Five feet. Green foliage. The coloring is very deep and warm, and is new and quite distinct, a mingling of carmine and oriental-red. In the center of the flower the color is lighter, composed of carmine over bright rose. The flowers are very large, borne twenty to a truss. Each, 30c.

**PANAMA**—Three feet. Green foliage. One of the most striking Cannas ever introduced. Very large flowers with petals almost round and as broad as they are long, in color, rich orange-red, with a well defined edge of bright golden-yellow. Each, 25c.

**SAN DIEGO**—Four feet. Described as Chinese orange or Persian-yellow in color. The crimped petals are remarkable for substance, enabling them to withstand the hot summer sun without wilting. Another charm is in the buds, which are dark bronze, harmonizing with the golden-bronze foliage. Grand in every way. Each, 50c.

**TRIUMPH**—Three feet. Green foliage. The flowers are of a handsome shade of deep rich crimson, held erect on fine, well built trusses and strong stems. Each, 15c.

**VENUS**—Four feet. Green foliage. This is one of the brightest and prettiest of Cannas, in bloom all summer. The flowers of a gay rosy-pink with a well defined border of creamy-yellow. Each, 15c.

**WABASH**—Four feet. The bronze-leaved Rosa Gigantea. The flowers are unusually large, with broad petals and produced in great profusion, in color beautiful carmine-pink. Each, 25c.

**WILLIAM SAUNDERS**—Four feet. Bronze foliage. This variety is a rival to King Humbert, and superior to it in that it continues in full bloom all summer when King Humbert is "off show." The bright scarlet flowers are often four inches across. Each, 25c.

**WINTZER'S COLOSSAL**—Five to six feet. Green foliage. Flowers of the orchid type, eight inches across, vivid scarlet, the largest Canna in commerce, far ahead of all others in size and brilliancy. Each, 40c.

**WYOMING**—Seven feet. Purple foliage. One of the most majestic of Cannas. The orange colored flowers are of the true orchid type, with large round petals. Each, 15c.





## PEONIES

**S**OMEONE in talking to us about Peonies, said that he wondered why it was necessary to have several hundred varieties when the colors were only red, pink and white. We had this in mind when working among Peonies last summer, and while it does seem strange if one is not familiar with this wonderful group of plants, after working among them it will readily be seen that there are none too many varieties. The coloring of Peonies is a very wonderful thing, impossible to describe on paper. There may be a dozen varieties to all of which practically the same general description might apply, and yet if they are placed side by side, one would immediately see that they were perfectly distinct and would want every one of them. There is a delicacy of coloring, wax-like, almost opalescent, in the paler shades, which is certainly very beautiful. The deeper shades carry all of the beauty of the finest roses. In addition to these delicate distinctions between the colors, there is an endless variety of form in the blooms. Some really look like water lilies, some are huge anemones, and in the double sorts there is a constant variation in type, some having collars of one kind and some of another, some with petals nearly plain, others beautifully incised. No, there are not too many varieties, and the Peony lover will want all of them.

While Peonies will grow in any kind of soil, rich or poor, clay, sandy or black, and do well in all of them, a good sandy loam seems to be the best. The soil must be well drained and must be prepared by digging at least two feet deep. The Peony loves a soil rich in organic matter, but very much dislikes to have manure come into direct contact with the roots. Peonies may be planted at any time from the middle of August until the ground freezes in the fall, and in the early spring until growth is too far advanced. September is the very best time. Peonies planted in beds should be set three and a half to four feet apart each way; planted in rows, two feet apart. The eye should be set into the ground two to three inches below the surface. When the clumps become so crowded as to interfere with freedom of bloom and the cultivation of the soil, they should be divided.

## VARIETIES

In our collection of Peonies we have included the cream of all of the best of the distinct varieties, both of the old standard sorts and the new introductions. Our descriptions correspond with those of the American Peony Society. Our prices are for good roots, which, if planted this fall, should bloom next spring, although they should not be expected to produce typical blooms the first year, many of the best double varieties sending out single or semi-double flowers. The finest flowers will not be produced until the third year.

## GENERAL COLLECTION OF PEONIES

**ADOLPHE ROSSEAU**—(D. and M., 1890.) Very large, semi-double, purple-garnet. Foliage dark veined red. Tall, vigorous and early. One of the darkest Peonies. Very good for landscape effect. \$2.00.

**AGNES MARY KELWAY**—(Kelway, 1890.) Large, crown type. Guards and crown deep violet-rose; collar cream-white. Fragrance X. Tall, vigorous free bloomer. Early midseason, striking and handsome. 75c.

**ALBATRE**—(Crousse, 1885.) Very large, compact, globular rose type. Milk-white shaded ivory; center petals tinged lilac, edged with minute carmine line. Very strong, vigorous, tall, free blooming. Midseason. Fragrance X. \$2.00.

**ALBERT CROUSSE**—(Crousse, 1893.) Very large, flat, compact, bomb. Rose-white flecked crimson. Tall, erect, free. Fragrant. Late. \$1.50.

**ALSACE-LORRAINE**—(Lemoine, 1906.) Very large, flat, semi-rose type, with petals arranged like a water lily. Cream-white deepening to pale yellow, distinct and beautiful. Tall, vigorous and free. Late. \$4.00.

**ALEXANDER DUMAS**—(Guerin, 1862.) Medium size, light violet-rose, crown. Creamy-white collar of narrow petals. Fragrant. Early midseason. Medium height and free. Good cut-flower variety. 50c.

**ANDRE LAURIES**—(Crousse, 1881.) Very large, very compact, globular, rose type. Dark Tyrian-rose, deeper in center, with red reflex and white splashes, sometimes splashed green. Medium height. Very late. Extra good. \$1.00.

**ANEMONAEFLORA RUBRA**—(Guerin, 1854.) Medium size, anemone type. Deep brilliant Tyrian-rose, carpels dark crimson. Tall and free. Midseason. 50c.

**ARMANDINE MECHIN**—(Mechin, 1880.) Large, medium, compact, flat, semi-rose. Violet-crimson, showing stamens. Medium strong, spreading, free. Midseason. \$1.50.

**AUGUSTIN D'HOUE**—(Calot, 1867.) (Syn. Marechal MacMahon.) Large, medium, compact, bomb. Dark brilliant solferino-red with slight silvery reflex. Medium tall; free. Midseason. 75c.

**AUGUSTE VILLAUME**—(Crousse, 1895.) Extra large, compact, globular, rose type. Dark violet-rose. Tall, strong grower. Late. Good. \$1.50.

**AURORE**—(Dessert, 1904.) Large, flat, loose, semi-rose type. Lilac-white, collar lighter, center flecked crimson; stamens prominent. Medium tall, compact. Late. \$2.00.

**BARONESS SCHROEDER**—(Kelway.) Very large, globular, rose type. Flesh-white fading to milk-white. Fragrance XX. Tall and strong. Very free. Midseason. \$2.00.

**BELSAIRE**—(Lemoine, 1901.) Large, globular, semi-rose type. Color pale lilac with minute dots of deeper lilac, guards and center flecked crimson. Stems red. Medium tall, strong grower. Midseason. \$2.50.

**BOULE DE NEIGE**—(Calot, 1862.) Very large, medium globular, compact, semi-rose type. Milk-white, guards and center prominently flecked crimson. Tall, erect, free. Early Midseason. 75c.

**BUNCH OF PERFUME**—(Kelway.) Very large, medium, compact, rose type. Light Tyrian-rose with silvery border. Medium height; free bloomer. Fragrant. Late midseason. \$1.00.

**CARMEN**—(Lemoine, 1898.) Very large, flat, compact, semi-rose type. Hydrangea-pink, center finely dotted crimson, color sprinkled in fine dots. Tall and erect. Midseason. \$1.50.

**CLAIRE DUBOIS**—(Crousse, 1886.) Very large, globular, rose type. Uniform clear, deep violet-rose, tipped silvery-white. Tall, strong and erect. Late. Extra good. \$1.50.

**CLAUDE GELLEE**—Large, medium, compact, flat, rose type. Uniform creamy-white. Fragrance X. Dwarf, compact grower. Late. \$2.00.

**COMTE DE PARIS**—(Guerin, 1842.) (Syn. Mons. Rousselon.) Medium size, globular, crown. Guard petals violet-rose, center bright rose and amber-white. Fragrant. Strong, vigorous and free. Midseason. 50c.

**CONSTANT DEVRED**—(Calot, 1868.) Very large, full, rose type. Dark rose-carmine. Fragrance XX. Medium height, strong, erect. Very late. \$1.50.



- COURONNE D'OR**—(Calot, 1872.) Large, flat, semi-rose type. Pure white with a ring of yellow stamens around a tuft of center petals, tipped carmine. Medium tall, strong grower, free bloomer. Late. 75c.
- COQUELIN**—(Dessert.) Medium size, flat, loose, semi-double. Light Tyrian-rose, becoming silvery tipped. Plants dwarf and drooping. Early. \$2.00.
- DE CANDOLLE**—(Crousse, 1880.) Very large, full, cup-shaped, rose type. Uniform bright lilac-purple, very distinct and attractive. Medium height, strong, erect and free. No odor. Late midseason. \$1.00.
- DELACHEI**—(Delachei, 1856.) Large, medium compact, rose type. Violet-crimson, slightly tipped silver. Medium height, strong, erect and free. Late midseason. 50c.
- DELECOURT VERHILLE**—(Verhille, 1860.) Large, medium compact, globular, bomb. Lilac-white, center milk-white, flecked crimson. Medium height. Midseason. \$1.00.
- DON JUAN**—(Kelway.) Medium size, globular, semi-rose type. Very dark carmine-amaranth or claret. Very distinct. Fragrance X. Medium height, strong, erect. Midseason. \$1.00.
- DR. BRETONNEAU**—(Guerin, 1850.) Large, compact, rose type. Guards pale lilac, center milk-white shaded amber. Tall, strong and free. Fragrant. Midseason. Extra commercial variety. 50c.
- DR. BRETONNEAU**—(Verdier, 1854.) Medium to large, pale lilac-rose, bomb. Center tipped cream-white, sometimes flecked crimson. Strong grower, free bloomer, splendid keeper. Early midseason. Extra good commercial variety. 35c.
- DUC DE WELLINGTON**—(Calot, 1850.) Large, bomb, with white guards and sulphur center. Fragrance XX. Medium height, vigorous and free. Late. 50c.
- DUCHESS OF TECK**—(Kelway.) Large, globular, rose type. Brilliant rose with fiery reflex, edges of petals changing to silvery-white. Distinct and beautiful. \$1.00.
- DUCHESS DE NEMOURS**—(Calot, 1856.) Medium size. Pure white crown, sulphur-white collar, no crimson flecks. Fragrant. Medium height, vigorous and free. Early. Extra good commercial variety. 50c.
- DUCHESS D'ORLEANS**—(Guerin, 1846.) Medium large, compact, bomb. Guards soiferino-red, center shaded salmon with silvery reflex. Fragrant. Tall, very strong and free. Midseason. 25c.
- DUKE OF CLARENCE**—(Kelway.) Very large, globular, medium compact, crown. Guards violet-rose, collar cream-white, center flecked crimson. Fragrance X. Tall and erect. Midseason. 75c.
- DUKE OF DEVONSHIRE**—(Kelway, 1896.) Extra large, compact, flat, rose type. Soiferino-red, narrow fringed petals intermingled with wide petals, giving a general color effect of uniform deep rose. Fragrance X. Tall and strong. Late. Very distinct and beautiful. \$1.50.
- EDULIS SUPERBA**—(Lemoine, 1824.) Large, loose, flat, crown. Bright mauve-pink with silvery reflex. Fragrance XX. Strong, upright and free. Early. This is one of the most valuable Peonies grown. It seldom fails to be in full bloom for Decoration Day. 50c.
- E. G. HILL**—(Lemoine, 1906.) Very large, medium, globular, semi-rose type. Uniform light Tyrian-rose, with wide border of silvery-rose. Dwarf, compact grower, exceedingly free flowering, even in very young plants. Early midseason. \$3.00.
- ENCHANTMENT**—(Hollis, 1907.) Medium size, flat, semi-rose type. Uniform pale lilac-rose with visible stamens. Tall, strong stems. Midseason. \$7.50.
- ETTA**—(Terry.) Very large, flat, rose type. Uniform pale Hydrangea-pink. Fragrance XX. Medium height. Very late. \$1.00.
- EUGENE BIGOT**—(Dessert, 1894.) Compact, globular, semi-rose type. Brilliant very deep Tyrian-rose, slightly silver tipped. Medium habit. Late midseason. \$1.50.
- EUGENE VERDIER**—(Calot, 1864.) Very large, compact, flat, semi-rose type. Pale Hydrangea-pink, outer guard petals lilac-white. Fragrant. Very erect, rather dwarf with extra strong stems. Free bloomer. \$1.50.
- FAUST**—(Mieliez, 1855.) Medium size, globular. Guard petals and crown Hydrangea-pink, fading to lilac-white, collar of narrow sulphur-white petals. Midseason. 35c.
- FESTIVA**—(Donkaler, 1838.) Large, full, double, rose type. Creamy-white with crimson spots in the center. Dwarf plant. Fragrance XX. Late. 50c.
- FESTIVA MAXIMA**—(Mieliez, 1851.) Very large, globular, rose type. Very broad petals. Pure white center usually flecked crimson; outer petals sometimes pale lilac-white on first opening. Very tall, strong and vigorous. Early. Most popular white for cut flowers. 50c.
- FLORAL TREASURE**—(Rosenfield, 1900.) Very large, rose type. Pale lilac-rose. Tall, vigorous grower and free bloomer. Fragrant. One of the best commercial flowers. Midseason. 50c.
- FRAGRANS**—(Sir Joseph Banks, 1805.) Bomb type, compact, full. Flowers of soiferino-red. Fragrance XX. Medium tall, strong and vigorous. Late. 25c.
- GENERAL BERTRAND**—(Guerin, 1845.) (Syn. Madam Furtado.) Large, compact, globular. Uniform soiferino-red, center slightly tipped silver. Tall, strong, upright grower. Fragrance XX. Early. Extra good. 50c.
- GEORGE WASHINGTON**—(Hollis, 1904.) Large, flat, loose, semi-rose type. Uniform dark crimson. Plants erect, of medium height. Midseason. \$1.50.
- GERMAINE BIGOT**—(Dessert, 1902.) Very large, medium compact, flat crown. Color pale lilac-rose, center prominently flecked crimson; very fresh and pretty. Strong, erect, medium height, free bloomer. Midseason. \$2.50.
- GLOIRE DE CHENONCEAUX**—(Mechin, 1880.) Medium to large, globular, compact, rose type. Uniform soiferino-red becoming silver tipped. Fragrance XX. Medium height. Strong and vigorous. Late midseason. \$1.00.
- GRANDIFLORA NIVEA PLENA**—(Lemoine, 1824.) Large, globular, rose type. Guards milk-white, collar cream-white; center on first opening an intermingling of sulphur-salmon and white. Fragrance XX. Medium height. Very early. Although it is one of the oldest varieties, it ranks among the best. \$1.50.
- GRANDIFLORA**—(Richardson, 1883.) Very large, flat, rose type. Uniform rose-white, delicately beautiful. Fragrance XX. Tall, erect and strong. Very late. One of the very best of its color. \$2.00.
- GOLDEN HARVEST**—(Rosenfield, 1900.) Medium size, loose, bomb or informal rose type. Guards pale lilac-rose, center creamy-white, on strong plants developing many wide petals of peach blossom-pink. Fragrant. Dwarf, very free. Midseason. A very striking variety. 50c.
- HENRI MURGER**—(Crousse, 1895.) Very large, compact, globular, rose type. Color uniform pure mauve. Fragrance XX. Medium height, strong, erect and free. Late. \$1.00.
- JAMES KELWAY**—(Kelway.) Very large, loose, semi-rose type. Rose-white changing to milk-white, tipped yellow at base of petals. Flowers borne in large clusters. Very fragrant. Medium height, strong and vigorous. Early midseason. \$2.50.
- JULES CALOT**—(Calot, 1861.) Large, flat, rose type. Color, soiferino with silvery reflex. Fragrant. Medium height, strong and free. Midseason. Good. \$1.00.
- KARL ROSENFELD**—(Rosenfield, 1908.) Very large, globular, compact, semi-rose type. Very rich, dark crimson. Tall, compact, very strong and free. Midseason. This Peony received first prize at the exhibition of the American Peony Society in June, 1911, for the best new Peony not in commerce before 1908. \$6.00.
- KELWAY'S GLORIUS**—(Kelway, 1909.) This Peony has been described by the introducers as the most wonderful new Peony sent out for many years. The enormous, full, double blooms are creamy-white with soft blush of rose. Very fragrant. Not for sale.
- KELWAY'S QUEEN**—(Kelway, 1909.) Large, globular, compact, rose type. Uniform mauve-rose, center flecked crimson. Fragrance X. Tall, strong and free. One of the most beautiful of Peonies. Late midseason. \$6.00.
- LA COQUETTE**—(Guerin, 1861.) Large, globular, high crown. Guards and crown light pink, collar rose-white, center flecked carmine. Medium height, erect, free bloomer. Fragrance X. Midseason. 50c.
- LADY ALEXANDRIA DUFF**—(Kelway.) This wonderful Peony is the most talked of variety in the world. The stock is very scarce. The flowers are of immense size, cup-shaped, with very wide imbricated petals. The color in the outer petals is very pale rose, passing gradually to rosy-white toward the center. The side flowers and the flowers on very young plants are semi-double, showing the stamens. It is very fragrant. The plants are tall and robust. Not for sale.
- LADY MAYORESS**—(Kelway, 1909.) Guard petals rose, center formed of narrow white imbricated petals. \$2.50.
- LAFAYETTE**—(Dessert, 1904.) Very large, compact, flat, rose type. Light violet-rose washed white. Fragrance XXX. Medium height. Midseason. Good. \$2.50.
- LA FONTAINE**—(Lemoine, 1904.) Large, globular, compact, bomb. Violet-rose, collar lighter, very wide guard petals, center flecked with crimson. Fragrance X. Tall, strong grower. Late midseason. Extra. \$3.00.
- LA PERLE**—(Crousse, 1885.) Very large, compact, globular, rose type. Color deep lilac-white with bluish center, prominently flecked carmine. Fragrant. Tall, vigorous, free bloomer. Midseason. Extra fine. \$1.00.
- LA ROSIERE**—(Crousse, 1888.) Large, flat, medium compact, semi-double. Outer petals pure white, passing to cream-white at center. Pale green carpels with white stigma. Habit medium. Midseason. Extra. 75c.
- LA TENDRESSE**—(Crousse, 1896.) Large, compact, flat, rose type. Color uniform milk-white, guards slightly splashed and center flecked with crimson. Fragrance X. Tall, strong growing, very free. Early. One of the choicest. \$2.00.
- LA TULIPE**—(Calot, 1872.) (Syn. Multicolore.) Very large, flat, semi-rose type. Lilac-white, outside guard petals marked crimson. Fragrant. Tall, strong growing, free blooming. Late midseason. Good variety, very attractive in bud. 75c.
- LE CYGNE**—(Lemoine, 1907.) The name, meaning the Swan. Is very appropriate to this distinct and beautiful variety. The flowers are large, globular, semi-rose type, with petals very much incurved. Pure milk-white, absolutely without flecks of any other color. Fragrance XX. Foliage very dark green. Medium height, very erect, stiff stem, very free bloomer. This is probably the finest white Peony in the world. \$15.00.
- L'INDISPENSABLE**—(Origin unknown.) Very full flowers, globular, rose type. Lilac-white shading toward center to pale violet-rose. \$1.00.
- LIVINGSTONE**—(Crousse, 1879.) Very large, compact, rose type. Pale lilac-rose tipped silver. Center petals flecked carmine. No fragrance. Medium height, very strong, free bloomer. One of the prize winners and a fine cut flower variety. \$1.50.
- LOUIS VAN HOUTTE**—(Calot, 1867.) Medium size, semi-rose type. Color deep carmine-rose tipped silver, with fiery reflex, of dazzling effect. Fragrant. Medium height. Late. 35c.
- MADAME BUCQUET**—(Dessert, 1888.) Large, loose, semi-rose type. Coloring very rich, uniform very dark crimson-amaranth. Fragrance X. Plants medium height, strong, upright, free bloomer. Midseason. 75c.
- MADAME CALOT**—(Mieliez, 1856.) Very large, rose type. Pale Hydrangea-pink, center shaded darker, collar tinted silver. Fragrance XX. Tall, strong growing, free blooming. Early. This variety is very reliable, never failing to bloom; is the freest blooming variety known and is the most fragrant Peony. 50c.
- MADAME CROUSSE**—(Calot, 1866.) Medium size, globular, crown. Pure white center flecked crimson. Medium height, strong, free bloomer. Midseason. One of the very best whites. 75c.
- MADAME DE GALHAU**—(Crousse, 1883.) Medium large, compact, globular, rose type. Guards rose-white, center pale lilac-rose. Fragrance XX. Medium height, strong, free bloomer. Late. 75c.



**MADAME DE TREYERAN**—(Dessert, 1889.) Very large, flat, compact, semi-rose type. Rosy-white sprinkled on in minute dots, center flecked with crimson. Very delicate coloring. Fragrance XXX. Medium height, erect, free bloomer. Early. \$4.00.

**MADAME DE VATRY**—(Guerin, 1853.) Very large, compact, high crown. Lilac-white guards and crown, sulphur-white collar of wide petals, center striped crimson. Fragrant. Medium height. Midseason. Splendid cut flower variety. 75c.

**MADAME DE VERNEVILLE**—(Crousse, 1885.) Pure white, center blush fading to pure white, prominently flecked carmine. Fragrance X. Medium height, exceptionally free bloomer. Early. 75c.

**MADAME DUCEL**—(Mechin, 1880.) Large, globular, typical bomb type. Light mauve-rose with silvery reflex. Fragrant. Medium height, strong grower, very free bloomer. One of the best. 75c.

**MADAME EMILE GALLE**—(Crousse, 1881.) Large, compact, flat, rose type. One of the most delicate and beautiful Peonies grown, of opalescent coloring, lilac-white tinged soft flesh and cream. Medium tall, strong, free bloomer. Late. \$1.00.

**MADAME EMILE LEMOINE**—(Lemoine, 1899.) Large, globular, compact, semi-rose type. Coloring superb and very fresh. Milk-white, very slightly tinged flesh-pink. Medium height, medium bloomer. Midseason. \$2.00.

**MADAME FOREL**—(Crousse, 1881.) Large, very compact, imbricated rose type. Violet-rose, center tipped silvery. Fragrance XX. Medium tall, of spreading habit. Late. \$1.00.

**MADAME FOULD**—(Crousse, 1893.) Large, globular, very compact, rose type. Outer petals milk-white, center lilac-white, slightly flecked crimson. Fragrance X. Very strong, erect, with tall stems. Very late. The last white variety to bloom. Extra. \$2.00.

**MADAME HERVE**—(Crousse, 1892.) Medium size, compact, rose type. Deep soiferino-red, with silvery reflex. Fragrant. Medium height and habit. Early midseason. 75c.

**MADAME MOUTOT**—(Crousse, 1892.) Medium size, semi-rose type, with very broad petals. Bright Tyrian-rose, tipped silver. Fragrance XX. Habit medium. Very free bloomer. Midseason. 50c.

**MADAME MUYSSART**—(Calot, 1869.) Very large, very compact, flat, rose type. Uniform soiferino-red, tipped silver. Fragrance X. Tall grower, very free bloomer. Late. 75c.

**MADAME THOUVENIN**—(Crousse, 1881.) Large, compact, globular, bomb type. Very beautiful pure mauve. Fragrance XXX. Strong, medium height. Late. \$1.00.

**MILE. LEONIE CALOT**—(Calot, 1861.) Large flowers, rose type. Coloring refined and beautiful, very delicate rose-white deeper in the center, slightly tipped carmine. Medium height, erect, spreading habit. Late midseason. 75c.

**MILE. ROUSSEAU**—(Crousse, 1888.) Large, globular, semi-rose type. Guard petals milk-white splashed carmine; center petals sulphur-white tinged slight blush. Medium height, extra strong, free bloomer. Midseason. Extra good. \$1.50.

**MILE. VAILLANT**—(Unknown.) Very large, globular, loose, bomb type. Guards milk-white, center cream-white. Pale green carpels, pink stigmas. Very free bloomer. Early. \$1.00.

**MARCELLE DESSERT**—(Dessert, 1899.) Large, medium compact, high crown. Milk-white lightly spotted lilac; center flecked crimson. Fragrance XXX. Midseason. Extra good. \$4.00.

**MARCHIONESS OF LANSDOWNE**—(Kelway.) Large, compact, flat, rose type. Very full flowers of pale Hydrangea-pink, deeper toward the center, splashed with crimson. Fragrance X. Very free bloomer. Midseason. \$2.00.

**MARECHAL VAILLANT**—(Calot, 1864.) Immense flowers, compact, globular, rose type. Dark mauve-pink. Very tall, and very late. 50c.

**MARGUERITE GERARD**—(Crousse, 1892.) Very handsome variety. Large, compact, semi-rose type. Very pale Hydrangea-pink, changing to creamy-white, center petals minutely flecked dark carmine. Medium height, very strong, free bloomer. Late. \$1.50.

**MARIE DEROUX**—(Crousse, 1881.) Large, medium compact, rose type. Lilac-white with lighter collar. Tall and vigorous. Late. Coloring very fresh. 75c.

**MARIE JACQUIN**—(Verdier.) (Syn. Bridesmaid) (Kelway) (Waterlily) (Barr). Very large, globular, semi-double. Rose-white fading to lilac-white, with a mass of golden stamens in the center, buds tinged with pink. The flower suggests in shape our native waterlily, and is wonderfully beautiful. \$1.00.

**MARY HOLLEY**—(Terry.) Medium size, globular, bomb type. Very showy rosy-magenta flowers. Fragrance XXX. Early. 75c.

**MASTERPIECE**—(Kelway, 1895.) Medium size, semi-rose. Fragrant flowers of brilliant Tyrian-rose. Tall grower, very free bloomer. Distinct and beautiful. Midseason. \$1.50.

**MAUD L. RICHARDSON**—(Hollis.) Large, medium compact, flat, rose type. Color, pale lilac-rose, lighter in center. Fragrance XX. Tall growing. Late. \$3.00.

**MILTON HILL**—(Richardson.) (Syn. Augustus Gould.) Very large, globular, compact, rose type. Color, pale lilac-rose, very distinct and pure. Medium height; strong grower. Late. One of the most beautiful varieties in existence. \$3.00.

**MODELE DE PERFECTION**—(Crousse, 1875.) Enormous flowers of compact rose type. Guards and collar light violet-rose, center petals very high, and shaded darker. Fragrant. Plant of medium dwarf habit. Very free bloomer. Extra good. Late. \$1.00.

**MODESTE GUERIN**—(Guerin, 1845.) Large, typical bomb. Uniform light soiferino. Fragrance XX. Medium height, extra strong, free bloomer. Midseason. Extra. 50c.

**MONS. JULES ELIE**—(Crousse, 1888.) Flowers immense, globular very full, high crown. Pale lilac-rose, collar lighter, shaded amber-yellow at the base. Fragrance XX. Medium height, strong grower. Early. Fine for cut flowers. \$1.00.

**MONS. MARTIN CAHUZAC**—(Dessert, 1899.) Medium size, globular, semi-rose type. The darkest Peony grown. Very dark purple-garnet, with black reflex. Coloring very distinct and handsome. Medium height, very strong and vigorous; free bloomer. Foliage very dark green with red stems. \$5.00.

**NEPTUNE**—(Dessert, 1905.) Large flowers of the crown type. Lilac-white with milk-white collar and cream-white stigmas. Fragrance X. Tall growing, strong, erect and free. Midseason. \$2.50.

**OCTAVIE DEMAY**—(Calot, 1867.) Very large, flat crown. Guards and center pale Hydrangea-pink. Fragrant. Very dwarf plant; free bloomer. Extra. \$1.00.

**PALLAS**—(Terry.) Very large, flat, semi-double. Petals very long. Color pale Hydrangea-pink, fading to white in center. Medium height, strong, very erect. Extra free bloomer. Midseason. \$1.50.

**PARADISE**—(Hollis, 1907.) Very large, compact, flat, rose type. Color very delicate and beautiful. Guards Hydrangea-pink, center lilac-white fading to milk-white. Fragrance X. Medium height; free bloomer. Early midseason. \$15.00.

**PETITE RENEE**—(Dessert, 1899.) Very large flowers, anemone type. Broad guard petals of carmine-purple; long narrow center petals, light magenta, tipped golden. Medium height, erect, free bloomer. Midseason. Very striking. \$1.50.

**PIERRE REIGNOUX**—(Dessert, 1908.) Large, medium flat, semi-rose type. Color uniform light Tyrian-rose, center slightly flecked crimson. Petals imbricated. Dwarf, erect. Early. \$3.50.

**PRESIDENT TAFT**—(Blaauw & Co., 1909.) New. Very large, cup-shaped flowers, rose type. Uniform soft lilac-pink; center distinctly marked carmine. Tall, strong free bloomer. \$2.00.

**PRIMIVKE**—(Lemoine, 1907.) Large, flat, bomb type. Guards creamy-white splashed yellow, center light sulphur-yellow. The nearest approach to a yellow Peony in the Chinesis section. Fragrance XXX. Tall and strong. Midseason. \$6.00.

**PRINCESS BEATRICE**—(Kelway, 1886.) Large, compact, high crown. Guards and crown delicate violet-rose. Collar cream-white; center flecked crimson. Medium height, strong, vigorous and very free. Fragrant. Early midseason. 50c.

**PRINCESS MAUD**—(Kelway.) Medium size, compact, bomb. Broad lilac-white guards, center amber-white, carpels yellowish-green, stigmas pink. Medium height. Strong grower, distinct and beautiful. \$2.50.

**PROLIFERA TRICOLOR**—(Lemoine, 1825.) Medium size, very loose anemone, developing a crown on well-established plants. Guards flesh white, collar sulphur-yellow, crown pale rose, narrow central petals sulphur-white; red carpels. Fragrant. Medium height, strong free bloomer. Unique. Late. 50c.

**ROSA BONIEUR**—(Dessert.) Very large, flat, rose type, with wide imbricated petals. Light violet-rose, guards flecked crimson. Medium height, strong. Midseason. Very fine. \$5.00.

**RUBA SUPERBA**—(Richardson, 1871.) Large, informal rose type. Very deep brilliant rose-carmine or crimson. Fragrant. Medium grower and bloomer. Very late, very good keeper. Considered the very best late crimson. 75c.

**RUY BLAS**—(Dessert.) Medium size, flat, semi-rose type. Pure mauve tipped silver. Dwarf, good habit, free bloomer. Midseason. \$2.50.

**SARAH BERNHARDT**—Flat, compact, semi-rose type. Uniform mauve-rose, silver tipped. Fragrance X. Tall, extremely strong growing, free bloomer. Midseason. \$4.00.

**SPLENDIDA**—(Kelway.) Very large, globular, cup-shaped rose type. Very beautiful, uniform light violaceous-pink. Fragrance XXX. Very strong, very free bloomer. \$2.00.

**SOLFATARE**—(Calot, 1861.) Large, medium, bomb type, developing a crown. Milk-white guards, center sulphur changing to sulphur-white. A very fine Peony and very distinct. Medium height. 75c.

**SOLANGE**—(Lemoine, 1907.) Unusually large full flowers, globular crown type. Outer petals delicate lilac-white, deeper toward the center, shaded with salmon. Unique and beautiful. Tall, erect, very strong. Late. \$7.50.

**SOUV. DE EXP. UNIVERSELLE**—(Calot, 1867.) Very large, flat, rose type. Violet-rose with silvery reflex, tipped silver. Fragrance X. Spreading habit. Free. Late midseason. 75c.

**SUMMER DAY**—(Kelway.) Flowers five to seven inches in diameter. Outer petals of considerable length, forming a beautiful guard to the center of small creamy-white petals. Very lovely. \$1.50.

**THE BRIDE**—(Terry.) Medium size flowers, informal bomb. Lilac-white guards, milk-white center. Strong grower, free bloomer. Very good for landscape work. Early midseason. 75c.

**THERESE**—(Dessert, 1904.) Very large rose type, developing into a high crown. Lovely violet-rose, passing to lilac-white in center. Medium height, strong free bloomer. One of the most beautiful. "As for Therese—well, when you see a bloom down the table, and think to yourself, 'There is something really grand,' it is almost always Therese." From the report of the 1916 Peony Exhibition in the Bulletin of Peony News. \$5.00.

**TRIOMPH DU NORD**—(Mieliez, 1850.) Very large, bomb type. Light soiferino-red with silvery reflex. Fragrance XX. Tall, very free. Midseason. Fine cut flower variety. 50c.

**UMBELLATA ROSA**—(Unknown.) Large, informal rose type. Guards violet-rose shading to amber-white center. Very strong grower, free bloomer. One of the earliest. Very fine for cut flowers and landscape work. 75c.

## EARLY MAY-FLOWERING PEONIES

These varieties bloom from one to four weeks earlier than the Chinesis section.

**OFFICIALIS ALBA PLENA**—Large, convex, double bloom. Pure white. Very scarce. 75c.

**OFFICIALIS LA BRILLIANTE**—Full double bloom; bright cherry. One of the handsomest of early Peonies. \$1.00.

**OFFICIALIS OURICA**—Very full, dark maroon. \$1.00.

**OFFICIALIS ROSEA PALLIDA PLENA**—(Syn. Mutabilis.) Large, full bloom; glossy soft pink shaded chamois, changing to pure white. \$1.00.

**OFFICIALIS RUBRA PLENA**—Large, globular, brilliant crimson flowers. This is the early flowering red Peony of old gardens. 25c.

## SINGLE PEONIES

- ALBIFLORA, The Bride**—(Syn. La Fiancee.) (Dessert, 1902), also Snowflake (Kelway.) Very beautiful large pure white flowers with a mass of golden stamens. Tall, vigorous grower, free bloomer, very early. \$2.00.
- DUCHESS OF PORTLAND**—(Barr.) Soft pink, frilled white. Very beautiful. \$1.00.
- GEORGE ALEXANDER**—(Kelway.) Deep maroon, with a cushion of crimson petaloids in center. \$2.00.
- MRS. BEERBOHM TREE**—(Kelway.) Blush-white. Dainty coloring; charming and graceful form. \$2.00.
- METEOR**—Bright dazzling crimson. \$1.00.
- MILLAIS**—(Kelway.) Very large. Very dark crimson. Tall, free bloomer; early. \$1.00.
- PRIDE OF LANGPORT**—(Kelway.) Beautiful shade of brilliant, yet soft peach-pink. One of the finest single varieties. \$4.00.
- ROSY DAWN**—(Barr.) Large snow-white tinged blush at first, resembling a great white water lily. \$1.00.
- STANLEY**—(Kelway.) Large, very dark brilliant crimson. Tall, very erect, free bloomer. Early midseason. The most valuable crimson single Peony for landscape work. 50c.
- THE KING**—(Kelway.) Medium size. Dark aniline-red, strong, erect, free bloomer. Early. \$1.50.

## HARDY PHLOX

**THE HARDY PHLOX** is one of our most beautiful, most useful, and most lasting hardy perennials. The new varieties are a great improvement over the old kinds. Their immense trusses of flowers are of every shade but yellow, passing from pure white to dark red and purple, through all the intermediate shades, soft rose, mauve, lilac and salmon, brilliant pink, dazzling scarlet, blood-red, crimson and amaranth, sometimes self-colored, sometimes variegated, starred, eyed, washed or shaded, in various and beautiful fashions. Their blooming season is in July and August, and coming at a time when the early summer flowers have stopped blooming, and the flowers of autumn have not yet begun, their glorious masses of color are indispensable to the carefully planned garden where a constant succession of bloom is maintained.

Hardy Phloxes to be at their best should have a very rich soil and plenty of water. The clumps should be lifted and divided every third year. Dwarf varieties may be set ten to twelve inches apart; tall varieties two to two and one-half feet. They may be planted from early to late fall, or in spring during April and May.

Varieties marked with an asterisk (\*) are imported and we quote subject to arrival of stocks. Except where noted, 15c each, \$1.50 per dozen. Varieties priced at 25c each, \$2.50 per dozen—35c each, \$3.50 per dozen.

Twelve 15c varieties, one of each, our selection of well balanced colors, \$1.50.

Twelve 25c varieties, one of each, our selection of well balanced colors, \$2.50.

**AMERICA**—Very large; light mauve-rose with large dark carmine eye. Each, 25c.

**\*AMERIQUE**—New. Plant of remarkable vigor, with numerous panicles of very large flowers. Soft salmon-rose with carmine eye. Each, 35c.

**ANTONIN MERCIÉ**—Very large and beautiful. Pure white center, bordered clear lilac.

**ARGON**—Delicate salmon-rose. Dwarf.

**BARON VAN DEDEM**—Superb panicles of very large florets, beautiful bright red with carmine eye. Each, 25c.

**CENDRILLON**—Large, beautifully formed, creamy-white flowers, with violet-blue tubes, forming a dark eye. Medium dwarf.

**CLARA BENZ**—Brilliant carmine-rose with lilac center. Dwarf.

**COMTESSE DE JARNAC**—New. Flowers rose-white; foliage variegated with white. This variety can stand the hot sun remarkably well without burning. Each, 25c.

**COMTE VON HOCHBERG**—Very large flowers of dark crimson. One of the very best. Each, 25c.

**COQUELICOT**—Very brilliant orange-red; eye slightly tinted violet.

**CREPUSCLE**—Very large flowers shading from a deep crimson center through rose-lilac to a white edge. Medium height. Each, 25c.

**DANIEL LESEUER**—Flowers very large, clear violet, edges and centers of petals white.

**ECLAIREUR**—Large flowers of brilliant purplish-red. An early and extremely vigorous variety.

**EDMOND BOSSIER**—Large flowers of carmine-aniline, with white central star. Each, 25c.

**ELIZABETH CAMPBELL**—New and very fine. Very large trusses, light salmon changing to pink in the center. Coloring distinct. Each, 25c.

**EUGENE DANZANVILLIERS**—Soft lilac-blue, with large white center.

**FERDINAND CORTEZ**—Deep crimson, overlaid coppery-bronze. Each, 25c.

**FRAU ANTOINE BUCHNER**—Strong plants. Flowers are pure white, the finest pure white Phlox yet introduced. Each, 25c.

**G. A. STROHLEIN**—New. Brilliant scarlet-orange flowers with bright carmine eye. Enormous trusses of extra large flowers.

**GEORGE SCHNEIDER**—Large flowers of lively rose, with large white center. Each, 25c.

**GOLIATH**—New. A very early variety, with very large plants. Large trusses of flowers, bright carmine with dark carmine-red center. Each, 25c.

**GUSTAVE NADAUD**—Gray-mauve deepening toward the center; yellow eye. Each, 25c.

**HANNY**—Cream deepening to salmon toward the center; crimson eye. Very delicate and beautiful. Each, 25c.

**HELENE VACARESCO**—Very dwarf variety, with globular panicles of large, pure white flowers, with sulphur eye. Ea., 25c.

**IDUNA**—Large white center, bordered pale rose Neyron. Ea., 25c.

## JAPANESE PEONIES

The Japanese Peonies are intermediate between the single and double types, their stamens being transformed into narrow petal guards, most of them having cup-shaped guard petals.

**BOBBIE BEE**—(Hollis.) Red guard with golden center. \$2.00.

**CATHEDRAL (Hana-no Sato—Name of a native flower)**—Blush, central filamental petals creamy. \$2.00.

**FLAMBOYANT (Kame-no-Kegoromo—Turtle's holiday attire)**—Rose, central filamental petals yellow. \$4.00.

**GYPSY**—(Hollis, 1904.) Large, flat, loose; very dark uniform Tyrian-rose. Medium tall. Midseason. \$2.00.

**KING OF ENGLAND**—(Kelway.) Rich ruby-madder, long narrow central petals pure gold, changing to gold striped crimson. \$2.00.

**LABOLAS**—Medium size. Dark crimson, narrow central petals tipped yellow; strong and vigorous, free bloomer. Mid-season. 50c.

**LEMON QUEEN (Gui-hui-taku)**—Pure white with a central cushion of short, fringed, pale yellow petals. \$2.00.

**MARGARET ATWOOD**—Very large, pure white, cup-shaped flowers with deep golden center. Very large petals of heavy texture, strong and vigorous. The finest white variety. \$3.50.

**INDEPENDENCE**—Large, early-flowering white.

**IRIS**—Aniline-blue, magenta eye. Young flowers showing magenta tinge. Very distinct and striking.

**JAMES BENNETT**—Light salmon-rose with large red center. Distinct.

**JEANNE D'ARC (Syn. Pearl)**—Very fine late white.

**JOSEPHINE GERBEAUX**—Pure white, with large rose center, beautifully blended.

**JULES BRETON**—New. Very large flowers, golden-rose with pale lilac-rose center. Each, 25c.

**MME. PAUL DUTRIÉ**—Very large flowers of very soft, delicate pink.

**\*MARCEL TURBAT**—New. This variety possesses the brilliant coloring and remarkable vigor of Eclairer, and in addition has foliage of new and unique coloring. The leaves are pale green variegated white and shaded rose in the young leaves. Large flowers of brilliant purplish-red. Each, 35c.

**NANA CAERULEA**—Very dwarf plant. Flowers beautiful violet-blue.

**PANTHEON**—Cerise-salmon with white center. Large branching spikes.

**RAYONNANT**—Dark carmine-rose with white band through the center of each petal. Each, 35c.

**REDOUBT**—Light bishop-violet with crimson eye and light halo. Each, 35c.

**RICHARD WALLACE**—Pure white with maroon center. Very tall.

**RIJNSTROOM**—Very large flowers of bright rose, brightened with rosy-white.

**ROSENBERG**—Rich carmine-violet with blood-red eye. Large trusses of immense flowers. Each, 25c.

**SELMA**—New and very lovely. Tender soft pink with large crimson center.

**SIGRID ARNOLDSON**—New. Fiery carmine-red with dark center. Each, 25c.

**TAPIS BLANC**—Large panicles of pure white flowers of perfect form, individual flowers larger than any other white variety. Plant very dwarf, six to eight inches high. Ea., 25c.

**WIDAR**—New. Violet-blue with pure white eye. Flowers in large panicles. Each, 25c.

**EARLY-FLOWERING PERENNIAL PHLOX**  
(Phlox Suffruticosa)

These early flowering Phloxes begin to bloom in June, a month before the other varieties. They have smooth, shiny green foliage and are limited as to color range.

Price, 20 Cents Each; \$2.00 per Dozen

**SNOWDON**—Pure snow-white.

**LADY MUSGROVE**—White, striped dark rose. Flowers in compact trusses.

**PERFECTION**—White with deep crimson eye.

**MISS LINGARD**—White with faint lilac eye. Very free flowering; beautiful for massing.

**MODESTY**—Large flowers of rosy-purple.



**MECHANICSBURG, Champaign Co., OHIO**

[illegible]





**THE WING SEED COMPANY, Mechanicsburg, Champaign Co., Ohio.**

TOTAL

[illegible]

[illegible]



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